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**STEAMBOAT-INSPECTION
SERVICE
ITS HISTORY, ACTIVITIES
AND ORGANIZATION**

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Washington, D. C.

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SERVICE MONOGRAPHS
OF THE
UNITED STATES GOVERNMENT
No. 8

STEAMBOAT-INSPECTION SERVICE

ITS HISTORY, ACTIVITIES
AND ORGANIZATION

BY
LLOYD M. SHORT

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FOREWORD

The first essential to efficient administration of any enterprise is full knowledge of its present make-up and operation. Without full and complete information before them, as to existing organization, personnel, plant, and methods of operation and control, neither legislators nor administrators can properly perform their functions.

The greater the work, the more varied the activities engaged in, and the more complex the organization employed, and more imperative becomes the necessity that this information shall be available—and available in such a form that it can readily be utilized.

Of all undertakings, none in the United States, and few, if any, in the world, approach in magnitude, complexity, and importance that of the national government of the United States. As President Taft expressed it in his message to Congress of January 17, 1912, in referring to the inquiry being made under his direction into the efficiency and economy of the methods of prosecuting public business, the activities of the national government "are almost as varied as those of the entire business world. The operations of the government affect the interest of every person living within the jurisdiction of the United States. Its organization embraces stations and centers of work located in every city and in many local subdivisions of the country. Its gross expenditures amount to billions annually. Including the personnel of the military and naval establishments, more than half a million persons are required to do the work imposed by law upon the executive branch of the government.

"This vast organization has never been studied in detail as one piece of administrative mechanism. Never have the foundations been laid for a thorough consideration of the relations of all its parts. No comprehensive effort has been made to list its multifarious activities or to group them in such a way as to present a clear picture of what the government is doing. Never has a complete description been given of the agencies through which these activities are performed. At

no time has the attempt been made to study all of these activities and agencies with a view to the assignment of each activity to the agency best fitted for its performance, to the avoidance of duplication of plant and work, to the integration of all administrative agencies of the government, so far as may be practicable, into a unified organization for the most effective and economical dispatch of public business."

To lay the basis for such a comprehensive study of the organization and operations of the national government as President Taft outlined, the Institute for Government Research has undertaken the preparation of a series of monographs, of which the present study is one, giving a detailed description of each of the fifty or more distinct services of the government. These studies are being vigorously prosecuted, and it is hoped that all services of the government will be covered in a comparatively brief space of time. Thereafter, revisions of the monographs will be made from time to time as need arises, to the end that they may, as far as practicable, represent current conditions.

These monographs are all prepared according to a uniform plan. They give: first, the history of the establishment and development of the service; second, its functions, described not in general terms, but by detailing its specific activities; third, its organization for the handling of these activities; fourth, the character of its plant; fifth, a compilation of, or reference to, the laws and regulations governing its operations; sixth, financial statements showing its appropriations, expenditures and other data for a period of years; and finally, a full bibliography of the sources of information, official and private, bearing on the service and its operations.

In the preparation of these monographs the Institute has kept steadily in mind the aim to produce documents that will be of direct value and assistance in the administration of public affairs. To executive officials they offer valuable tools of administration. Through them, such officers can, with a minimum of effort, inform themselves regarding the details, not only of their own services, but of others with whose facilities, activities, and methods it is desirable that they should be familiar. Under present conditions services frequently engage in activities in ignorance of the fact that the work projected has already been done, or is in process of execution by other services. Many cases exist where one service could make effective use of the organization, plant or results of other serv-

ices had they knowledge that such facilities were in existence. With the constant shifting of directing personnel that takes place in the administrative branch of the national government, the existence of means by which incoming officials may thus readily secure information regarding their own and other services is a matter of great importance.

To members of Congress the monographs should prove of no less value. At present these officials are called upon to legislate and appropriate money for services concerning whose needs and real problems they can secure but imperfect information. That the possession by each member of a set of monographs, such as is here projected, prepared according to a uniform plan, will be a great aid to intelligent legislation and appropriation of funds can hardly be questioned.

To the public, finally, these monographs will give that knowledge of the organization and operations of their government which must be had if an enlightened public opinion is to be brought to bear upon the conduct of governmental affairs.

These studies are wholly descriptive in character. No attempt is made in them to subject the conditions described to criticism, nor to indicate features in respect to which changes might with advantage be made. Upon administrators themselves falls responsibility for making or proposing changes which will result in the improvement of methods of administration. The primary aim of outside agencies should be to emphasize this responsibility and facilitate its fulfillment.

While the monographs thus make no direct recommendations for improvement, they cannot fail greatly to stimulate efforts in that direction. Prepared as they are according to a uniform plan, and setting forth as they do the activities, plant, organization, personnel and laws governing the several services of the government, they will automatically, as it were, reveal, for example, the extent to which work in the same field is being performed by different services, and thus furnish the information that is essential to a consideration of the great question of the better distribution and coördination of activities among the several departments, establishments, and bureaus, and the elimination of duplications of plant, organization and work. Through them it will also be possible to subject any particular feature of the administrative work of the government to exhaustive study, to determine, for example, what facilities, in the way of laboratories and other plant and

equipment, exist for the prosecution of any line of work and where those facilities are located; or what work is being done in any field of administration or research, such as the promotion, protection and regulation of the maritime interests of the country, the planning and execution of works of an engineering character, or the collection, compilation and publication of statistical data, or what differences of practice prevail in respect to organization, classification, appointment, and promotion of personnel.

To recapitulate, the monographs will serve the double purpose of furnishing an essential tool for efficient legislation, administration and popular control, and of laying the basis for critical and constructive work on the part of those upon whom responsibility for such work primarily rests.

Whenever possible the language of official statements or reports has been employed, and it has not been practicable in all cases to make specific indication of the language so quoted.

CONTENTS

CHAPTER	PAGE
FOREWORD	
I. HISTORY	I
Establishment and Early Growth of the Service: 1838-1870	I
Establishment of a Central Office: 1871-1903	6
Development of the Service Since 1903	16
II. ACTIVITIES	28
Inspection of Vessels	30
Inspection of Hulls	31
Inspection of Boilers	35
Inspection of Equipment	37
Certificates of Inspection	43
Reinspection of Vessels	46
Inspection and Approval of Boiler Plates	48
Inspection and Approval of Equipment	49
Inspection for Other Departments	51
Examination and Licensing of Marine Officers	53
Examination and Certification of Seamen and Life-Boat Men	57
Determination of Ship's Complement and Accommodations Therefor	58
Investigations of Marine Casualties and Violations of Inspection Laws	60
Establishment of Regulations to Prevent Collisions	67
Determination of Ship's Passenger Allowance	70
Inspection of Passenger Accommodations	73
Regulation of the Transportation of Dangerous Articles	75
III. ORGANIZATION	80
General Administration	80
Marine Boiler Plate Inspection	83
Inspection Service	84
Conclusion	96
APPENDIX	
1. Outline of Organization	100
2. Classification of Activities	109
3. Publications	111
4. Laws	113
5. Financial Statements	120
6. Bibliography	124
Index	129

STEAMBOAT-INSPECTION SERVICE: ITS HISTORY, ACTIVITIES AND ORGANIZATION

CHAPTER I

HISTORY

The United States Steamboat-Inspection Service, a bureau of the Department of Commerce, has, as its primary duty or function, the administration of the laws of the United States enacted for the purpose of safeguarding the lives of passengers on steamboats and other vessels engaged in marine transportation. In the performance of this important function, the service is chiefly engaged in three general types of work: (1) The inspection of the hulls, machinery, and equipment of vessels of the merchant marine of the United States made subject to such inspection by acts of Congress; (2) the licensing of the officers and the certification of the crews of such vessels; (3) the conduct of trials and investigations to ascertain violations of the steamboat-inspection laws and of the rules and regulations established for their proper administration. The activities of the service bring it into close contact with several large business interests of the nation as well as with millions of men, women, and children annually carried by vessels subject to its jurisdiction. Shipbuilders, manufacturers of marine equipment, iron and steel mills rolling material for the construction of boilers, and the manufacturers of marine boilers,—all are vitally interested in and affected by the work of this service.

Establishment and Early Growth of the Service: 1838-1870. The Steamboat-Inspection Service had its beginning in an act of Congress approved July 7, 1838 (5 Stat. L., 304), the first legislation enacted by the national government looking toward the "better security of the lives of passengers on board of vessels propelled in whole or in part by steam." Owners or masters of such vessels were required to employ a competent number of experienced and skillful engineers, to have the hulls of their vessels inspected every twelve months and the boilers of the same every six months to determine their strength and durability, and to provide their ships with lifeboats, signal lights, fire pumps and hose, and other equipment to insure protection of those on board. A license certificate had to be procured by such owner or master, subscribing to their compliance with these requirements, before passengers could be carried. This act further authorized district judges of the United States within whose district any ports of entry or delivery might be, on the navigable waters, bays, lakes, and rivers of the United States and "upon the application of the master, or owner of any steamboat or vessel propelled in whole or in part by steam, to appoint from time to time, one or more persons skilled and competent to make inspections of such boats and vessels, and of the boilers and machinery of the same." The inspectors thus appointed were authorized to inspect such vessels when called upon by the master or owner, receiving compensation from the owners of vessels inspected at the rate of five dollars for each hull and five dollars for each boiler. After each inspection, the inspectors were authorized, if the vessel was found to meet all requirements, to issue a license certificate or certificate of inspection to the owner or master, which was required to "be posted up and kept in some conspicuous part of the boat for the information of the public." The concluding section of this act, which initiated the inspection of steam-vessels in the United States, provided that any person employed on board a boat in which lives were lost through his misconduct, negli-

gence, or inattention to duty should be deemed guilty of manslaughter.

Several laws of minor importance were passed in the years immediately following the act of 1838 extending its provisions and making certain modifications in its application. An act approved March 3, 1843 (5 Stat. L., 626) provided for additional steering apparatus on steam-vessels in case of an emergency such as in the event of the pilot being driven from the wheel by fire. The number of passengers that vessels subject to the steamboat laws could carry was limited by the act of February 22, 1847 (9 Stat. L., 127), while the act of March 3, 1849 (9 Stat. L., 399), extended the above to include all vessels bound from any port in the United States to any port or place in the Pacific Ocean or on its tributaries or from any such port or place to any port in the United States on the Atlantic or its tributaries.

The present Steamboat-Inspection Service, however, dates its establishment from an act of Congress approved August 30, 1852 (10 Stat. L., 1852), and known as the "Steamboat Act." Since this act furnished the foundation upon which a large part of the service, as it is at present organized, was built, it may be well to examine its provisions somewhat in detail, especially those pertaining to the administration of the service. It provided for the appointment of nine supervising inspectors, by the President, by and with the advice and consent of the Senate, who were to be competent and experienced men in the construction and operation of merchant vessels. These supervising inspectors were required to meet once a year for joint consultation and to establish rules and regulations for the uniform administration of the inspection laws. At this joint session, the supervising inspectors were also to assign to each of their number the limits of the territory over which he should exercise supervision and control. A detailed description of the nature of the work of these supervising inspectors will be reserved for a later chapter, but it is sufficient to note here that they were charged with the super-

vision of the work of the local inspectors within their respective districts, to assist in the actual work of inspection when necessary, to report cases of neglect, carelessness and inefficiency among local inspectors to the Secretary of the Treasury, who was given the power of removal, and to furnish the latter with technical information on matters pertaining to the welfare of the service. The supervising inspectors were to receive a salary of \$1500 per annum and all necessary and reasonable traveling expenses incurred in the performance of their duties.

The provisions of this act, in regard to the appointment of local inspectors, superseded the act of 1838. For certain collection districts specifically enumerated in the act, two inspectors were to be appointed by a commission consisting of the collector or other chief officer of customs of the district, the supervising inspector in charge of the district, and the judge of the United States District Court, and approved by the Secretary of the Treasury. The compensation of these local inspectors, to be known as the inspector of hulls and the inspector of boilers, was definitely fixed by the act, and ranged from \$200 to \$2000 per annum, being based upon the estimated amount of work required in the various districts. Fees for the inspection of vessels and the issuance of license certificates to officers of the same were to be turned over to the collector of customs who would remit the same to the Treasurer of the United States. In addition to their work in the inspection of vessels, the local inspectors, acting as a board, were authorized to license and classify all engineers and pilots of steamers carrying passengers. Appeals were permitted to be taken from the decisions of the local boards to the supervising inspector of the district. The act also prescribed additional requirements for vessels, such as precautions against fire, additional life-saving equipment, and a special license to carry certain dangerous or inflammable articles.

In addition to approving the appointment of local inspectors, the Secretary of the Treasury was authorized by the

act of 1852 to receive reports from the board of supervising inspectors, to inquire into the operation of the inspection laws, and to make recommendations to Congress. Accordingly a personal agent of the Treasury Department was appointed by the Secretary to collect information as to the work of the service and to attend the meetings of the board of supervising inspectors. The reports of this officer, together with the annual reports of the proceedings of the board of supervising inspectors, furnished the Secretary with information as to the needs of the service upon which to base his recommendations to Congress. The rather prevalent hostility and opposition to the inspection laws in the years immediately following the passage of the "Steamboat Act," especially among the officers and owners of vessels, was later greatly minimized by the increasing and apparent benefits of their operation. The board of supervising inspectors in their annual report to the Secretary of the Treasury for the fiscal year ending June 30, 1862, noted particularly this changed attitude on the part of those directly affected by the work of the inspection service: "A general admission of the great utility of the laws and expressions of satisfaction at the results which have followed its observance, which to those interested in such property is now fully apparent, has now taken the place of the original opposition with which the inspectors were met in many instances; and incomplete as this law may be, in some respects, the cause of almost every accident to passenger steamers which now occurs can be readily traced to a violation of its provisions, or of the regulations of this board made pursuant thereto."

Numerous acts were passed, following the reorganization of the service in 1852, usually upon recommendations made to Congress by the Secretary of the Treasury, which served to enlarge the work of the service by providing new inspection districts and imposing additional requirements upon the owner of steam-vessels. The provisions of these acts, in summary form, are as follows:

(1) Joint resolution of March 3, 1853 (10 Stat. L., 262), defining more specifically the duties of inspectors under the "Steamboat Act."

(2) Act of March 3, 1855 (to Stat. L., 715), regulating the carriage of passengers on steam-vessels both as to number and accommodations therefor.

(3) Act of June 8, 1864 (13 Stat. L., 120), making provision for an additional supervising inspector and two local boards, and abolishing one local inspection district. The act of 1852 was also extended to include ferry-boats, tug-boats, and canal-boats carrying passengers for hire.

(4) Act of July 4, 1864 (13 Stat. L., 390), further regulating the carriage of passengers on steamboats and other vessels.

(5) Act of March 3, 1865 (13 Stat. L., 514), providing for two local assistant inspectors and one additional local inspection board, and reestablishing the inspection district abolished the previous year.

(6) Act of July 25, 1866 (14 Stat. L., 227), further providing for the safety and accommodation of passengers, and fixing the salaries of local inspectors.

Establishment of a Central Office: 1871-1903. The act of 1852, while giving the Secretary of the Treasury a certain amount of indirect supervision over the work of the Steamboat-Inspection Service, failed to place the service definitely under the direction and control of any one of the executive departments, without which the necessary and proper direction and control could not be had. This serious defect in the Steamboat Act was pointed out by the special agent of the Treasury Department in his reports to the Secretary of the Treasury as early as 1855. In his report dated November 6, 1855, that officer said:

The system is at present without an efficient head. The president of the board of supervising inspectors is, from the necessity of the case, little more than a moderator of debates

at their annual meetings. The powers that the law confers on the Secretary of the Treasury are very limited. A body without a head is a monster; and so likewise is a body with nine heads. With the Union divided into nine districts, and the supervising inspector in each district exercising a wide discretion in regard to rules and regulations, there has been no uniformity in the operation of the act. It is only at Washington City, where the accounts are collected from all quarters, that there can be a proper supervision of the system. Whether this should be by a Supervisor-General, by the Secretary of the Treasury, or by a board especially constituted for that purpose, is for the wisdom of Congress to determine. . . . As at present constituted, the board of supervising inspectors is an anomaly. All the other officers of the government are, in some way, brought under suitable responsibility, either to the President or to the head of some department.

Some effort must have been made by the Secretary of the Treasury, under the limited authority granted to him by the act of 1852, to provide such a head for the service, for we find that a report was made to him in 1870, on a proposed bill to reorganize the service, by the Chief of the Steamboat-Inspection Division.¹ The chief of this division, in all probability created by departmental order, commented favorably on the work of the special agent detailed by the Secretary of the Treasury in 1852 to report on the operations of the service and to draw up the proposed bill. The appropriation acts for the fiscal years ending June, 30, 1870 and 1871, providing for the Steamboat-Inspection Service, contain items covering the salary and traveling expenses of this special agent of the department.²

The proposed bill submitted to the Secretary of the Treasury in 1870, by the chief of the Steamboat-Inspection Division,

¹ Diligent search of the available records and appropriation acts, as well as inquiries directed to the present head of the bureau, have failed to reveal at what time and by what authority such a division in the Treasury Department was organized.

² Act of March 3, 1869 (15 Stat. L., 301); and act of July 15, 1870 (16 Stat. L., 291).

which had been approved by the board of supervising inspectors, was the subject of legislation passed by Congress and approved February 28, 1871 (16 Stat. L., 440). By the terms of this act, which marks a third important step in the development of steamboat inspection, the recommendations previously noted for an administrative head of the service were given recognition in the creation of the office of "Supervising Inspector-General" who, under the direction of the Secretary of the Treasury, should have immediate direction and supervision over the entire work of the service. This officer, who was to be appointed by the President, by and with the advice and consent of the Senate, and selected with reference to his fitness and ability to systematize and carry into effect all the provisions of law relating to the Steamboat-Inspection Service, was granted a salary of \$3500 per annum, in addition to traveling expenses incurred in the performance of his duties at the rate of ten cents per mile.

The joint meeting of the supervising inspectors, first provided for in the act of 1852, was now given a more definite status. The supervising inspectors together with the Supervising Inspector-General, were to assemble as a board, at Washington once a year, and at such other times as the Secretary of the Treasury might prescribe, for joint consultation and for assignment to each of their number the limits of the territory within which he should perform his duties. The board was vested with authority to establish all necessary rules and regulations required for the proper and uniform administration of the inspection laws, and such regulations, when approved by the Secretary of the Treasury, should have the full force of law.

With one exception, the act of 1871 superseded or repealed all previous legislation on the subjects of inspection, licensing of officers, and the transportation of passengers and merchandise on vessels propelled in whole or in part by steam.³

³ The exception here noted is that section of the act of August 30, 1852, which provided for the punishment and the forfeiture of

"All steam-vessels navigating any waters of the United States which are common highways of commerce, or open to general or competitive navigation, excepting public vessels of the United States, vessels of other countries, and boats propelled in whole or in part by steam for navigating canals," were made subject to the provisions of this act. Despite frequent modifications and amendments that have been made from time to time, the basic activities and organization of the Steamboat-Inspection Service as thus established have remained practically without change up to the present time.

There will be reserved for the next chapter a detailed analysis of the activities of the service, as authorized by the act of 1871 and modified by subsequent amendments and additions thereto, only the more important provisions of the act enlarging the scope of the service being noted here. The following gives a brief resume of the contents of these provisions:

(1) The respective duties of the various branches of the service, namely the Supervising Inspector-General, the district supervising inspectors, and the local inspectors were outlined in detail;

(2) The board of supervising inspectors was authorized to establish such regulations to be observed by all steam-vessels in passing each other as they should from time to time deem necessary for safety;

(3) Additional boards and local inspectors were authorized and the qualifications of such officers were set down in greater detail;

(4) Ferry-boats, canal-boats, yachts, and other small craft of like character propelled by steam, tug-boats, towing-boats, and freight-boats were made subject to the laws for the inspection of vessels and the licensing of engineers and pilots;

(5) Reinspections were authorized to be made by local inspectors at proper times, to ascertain the safety of vessels for office of steamboat inspectors receiving any fee or reward for their services, except that allowed by law.

the purposes of navigation and to detect violations of the inspection laws;

(6) Additional requirements were imposed upon the owners of vessels to provide for the safety and comfort of passengers;

(7) Collectors of customs were forbidden to license, register or enroll any vessel propelled in whole or in part by steam until satisfied that all provisions concerning the regulation of such vessels had been complied with;

(8) The states were prohibited from imposing upon pilots of steam-vessels any obligation to procure a state or other license in addition to that issued by the United States; and

(9) The issuance of licenses by the boards of local inspectors to masters, chief mates, engineers, and pilots of steam-vessels was made the subject of detailed regulation, especially with regard to the qualifications of applicants for such licenses, and the local inspectors were given power to revoke the licenses of officers in case of "bad, intemperate habits, incapacity, inattention to duty, or the willful violation of any provisions of this act."

It is significant, as was especially brought out in a brief history of the Steamboat-Inspection Service prepared under the direction of the Secretary of Commerce and Labor and contained in a work known as the "Organization and Law of the Department of Commerce and Labor," published in 1904, that the act of 1871 was directed toward the promotion of the security of the lives of *all* persons on board steam-vessels, thereby giving the officers and crews of such vessels the lawful protection that formerly extended only to passengers.

Following the passage of the important act of 1871, which has been characterized by the Supervising Inspector-General, in his annual report for 1905, as being, without doubt "the wisest legislation ever devised upon these lines," the subject of steamboat inspection received frequent attention from Congress. Numerous acts were passed from 1872 to 1903 with the purpose of making more efficient and inclusive the work

of the service. A great many of these laws, however, were enacted only after urgent and repeated recommendations had been made by the Secretary of the Treasury and the Supervising Inspector-General in their annual reports. A brief summary of the content of the most important of these acts follows:

(1) Act of April 17, 1874 (18 Stat. L., 30), authorizing the issuance of engineers' and pilots' licenses by the boards of local inspectors, to aliens who had declared their intention of becoming citizens of the United States.⁴

(2) Act of August 2, 1882 (22 Stat. L., 186), known as "The Passenger Act 1882," superseding all prior acts seeking to regulate the transportation of passengers on steam-vessels. Collectors of customs were authorized to direct inspectors to examine vessels for the purpose of ascertaining the number of passengers such vessels could carry with safety and the accommodations, such as hospital facilities, food, and deck space provided therefor.

(3) Act of August 7, 1882 (22 Stat. L., 346), providing that all foreign private steam-vessels carrying passengers from any port of the United States to any other place or country should be subject to the laws for the regulation of steam-vessels. The Secretary of the Treasury was authorized to appoint sixteen "special inspectors of foreign steam-vessels," at a salary of \$2000 per annum, who should make reports to the Supervising Inspector-General under such regulations as should be prescribed by the Secretary of the Treasury.

(4) Act of March 3, 1885 (23 Stat. L., 438), adopting the "Revised International Rules and Regulations for Preventing Collisions at Sea," to be followed in the navigation of all public and private vessels of the United States upon the high seas or in the coast waters of the United States.

(5) Act of June 19, 1886 (24 Stat. L., 79), abolishing the collection of all fees heretofore charged, for the rendering of

⁴ Previous to the passage of this act, the issuance of such licenses had been restricted by law to citizens of the United States.

certain services, by collectors of customs and inspectors of steam-vessels, to American vessels. Collectors and inspectors were required to make a detailed report of service performed and fees provided by law to the Secretary of the Treasury; and that officer was authorized to allow and pay said officers for such services, as each would have received prior to the passage of this act, out of money in the Treasury not otherwise appropriated.⁵

(6) Act of January 22, 1894 (28 Stat. L., 28), authorizing the Supervising Inspector-General, under the direction of the Secretary of the Treasury, to detail assistant inspectors from any local inspection district where such assistant inspectors were employed, to inspect iron and steel boiler plates at the mills where the same were manufactured. Material for the manufacture of marine boilers, when bearing the stamp of an assistant inspector so detailed, was to be accepted by local inspectors as being in full compliance with the rules of the supervising inspectors with regard to the inspection of boiler plates.⁶

(7) Act of March 1, 1895 (28 Stat. L., 699), abolishing the office of "special inspector of foreign steam-vessels," as created by the act of August 7, 1882, previously quoted. The inspection of foreign vessels was thereafter to be a part of the duties of the local inspectors and their assistants. Additional boards of local inspectors were established and the salaries of all local inspectors were based upon the number of vessels inspected during the preceding year, ranging from \$1200 to \$2500 per annum. The act further authorized the

⁵ As previously noted, the payment of fees to the inspectors of vessels for their services was abolished by the act of 1852, but the salaries of such officers as fixed by law had been paid, up to this time, out of receipts from fees derived from the inspection of vessels and the licensing of officers. The annual reports of the Supervising Inspector-General show that the receipts from these sources were more than sufficient to cover the salaries and contingent expenses of the service.

⁶ In his annual report for 1893, the Supervising Inspector-General urged that provision be made for the inspection of boiler plates at the mills.

appointment by the Secretary of the Treasury, upon the nomination of the supervising inspector of the district, of assistant inspectors in collection districts where 225 or more steamers were inspected annually. The Secretary of the Treasury was also given power to appoint clerks for the boards of local inspectors in the above districts. The compensation of these additional employees of the service was fixed by the act, and traveling expenses for all officers of the service were thereafter to be allowed at the rate of eight cents per mile.⁷

(8) By an executive order issued on March 2, 1896, all the employees of the Steamboat-Inspection Service, with the exception of the Supervising Inspector-General and the supervising inspectors, who are appointed by the President, were placed in the classified civil service.⁸

⁷ It is significant to note that two of the important changes made in the service by this act had been repeatedly urged by the Supervising Inspector-General in his annual reports. In the first place, that officer specifically recommended the repeal of the act creating the office of "special inspector of foreign steam-vessels" in his reports for 1889 and 1890, on the ground that the need for such special inspectors ceased to exist when the act of June 19, 1886, abolishing the collection of all fees, was approved. At the time of the passage of the act of August 7, 1882, requiring the inspection of foreign vessels, the expenses of the service were paid out of the receipts from fees, and such fees could not legally be diverted to pay the salaries and expenses of inspectors of foreign vessels. Since the inspectors were paid on an annual fixed salary basis after 1886, however, they could perform this additional service, which was not heavy, without additional expense to the government.

In the second place, the Supervising Inspector-General had frequently called attention to the inequalities in the salaries of local inspectors as fixed by the act of 1871, in comparison with the amount of work they were called upon to do, and specifically recommended in his annual report for 1893 a minimum salary of \$1500 and amounts in excess of that sum based upon the number of vessels inspected.

⁸ As early as 1880, the Supervising Inspector-General expressed dissatisfaction with the method of appointment of local inspectors, namely, by a commission consisting of the supervising inspector of the district, the collector of customs, and the United States district judge,—a system dating back to 1852—and urged the appointment of the local inspectors from among the list of masters or pilots and engineers licensed by the service, by the Secretary of the Treasury upon nomination by the supervising inspector of the district. In

(9) Act of May 28, 1896 (29 Stat. L., 188), making five years the term of all licenses issued to officers of steam-vessels, and providing for their renewal at any time before their expiration. The act defined what vessels should be deemed "vessels of the United States," and required that the officers of such vessels having charge of a watch, including pilots, should in all cases be citizens of the United States. It was provided, however, that this latter requirements should not be construed to modify or repeal the act of April 17, 1874.

(10) Act of January 18, 1897 (29 Stat. L., 489), subjecting all vessels of above fifteen tons burden, carrying freight or passengers for hire, propelled by gas, fluid, naphtha, or electric motors, to the provisions of law relating to the inspection of hulls and boilers of vessels and to the licensing of engineers and pilots; also to the regulations established by the board of supervising inspectors with regard to lights, fog signals, steering, and sailing rules.⁹

regard to the appointment by commission, he said: "The present mode of appointment by a commission consisting of the supervising inspector, the collector of customs, and the judge of the district court, while good in theory, is not found to be so in practice, since it frequently happens that the lay members of the board are more anxious for the success of a favorite candidate than for the efficiency of the Steamboat-Inspection Service. Therefore I would have the nomination of inspectors made by the supervising inspector alone, who would then be solely responsible if unsuitable appointments should be made, and who would be subject to the discipline of the department for all errors in that respect." This recommendation was repeated in 1886 and again in 1890.

In his annual report for 1898, following the issuance of the above executive order, the Supervising Inspector-General declared that the placing of the employees of the service under the classified civil service was not a success for two reasons: (a) Serious delay in the work of the Civil Service Commission and (b) A lack of sufficient candidates because of the aversion of applicants toward taking the examination. He again advocated nomination by the supervising inspectors and approval by the Secretary of the Treasury, and removal only in case of incompetency, inefficiency, misconduct, or physical or mental disability; and for those causes only when proved before a committee of three supervising inspectors appointed by the Supervising Inspector-General. This recommendation, however, has never received the approval of Congress.

⁹ The Supervising Inspector-General, in his annual report for 1888, called special attention to an accident that had occurred during

(11) Act of February 15, 1897 (29 Stat. L., 530), reducing the rate allowed for traveling expenses of all inspectors in the service from eight to five cents per mile.

(12) Act of March 3, 1897 (29 Stat. L., 687), authorizing the Secretary of the Treasury to direct the inspection of any foreign vessel admitted to American registry and the issuance of the usual certificate of inspection, the tests in such inspections to be the same in all respects as were required in the inspection of American vessels.

(13) Act of March 23, 1898 (30 Stat. L., 340), extending the provision in the act of 1871 which authorized inspectors to examine, license, and classify chief mates of steam-vessels, to include chief mates of ocean or coastwise steam-vessels, second or third mates of such vessels in charge of a watch, and mates of river steamers.

(14) Act of April 21, 1898 (30 Stat. L., 360), creating an additional board of local inspectors.

(15) Act of December 21, 1898 (30 Stat. L., 764), extending the provisions for the inspection of vessels and the licensing of officers to include sail vessels of over 700 tons and all other vessels or barges of over 100 tons burden carrying passengers for hire.¹⁰

(16) Act of February 15, 1902 (32 Stat. L., 34), amending the act of August 7, 1882, which provided for the inspection of foreign steam-vessels, by authorizing the reciprocal recognition of the inspection of hulls, boilers, and equipment, by foreign countries, in the case of foreign passenger steamers belonging to countries having inspection laws similar to or approximating those of the United States.

the year. A steamer had collided with a naphtha launch, and upon investigation, the board of local inspectors placed the blame on the pilot of the launch. Using this as an example he urged the desirability of extending the inspection laws to include motor boats.

¹⁰ The action thus taken was recommended almost forty years before, by the board of supervising inspectors, in its report to the Secretary of the Treasury for 1860. Attention was called to the frequent accidents involving sail vessels and the recommendation made that the act of 1852 be extended to include such vessels.

This review of the rapid development of the Steamboat-Inspection Service following the establishment of a central office for the service in 1871, serves to indicate the growing importance of this bureau and the recognition by Congress that it was performing a function vitally necessary to the proper protection of the lives of those who were subject to the dangers of navigation. Attention is also called to the direct influence exercised by the Supervising Inspector-General upon legislation looking toward an enlarged scope of the activities of the service and improvement in its personnel and administrative organization.

Development of the Service Since 1903. Together with a considerable number of other bureaus performing a variety of functions, the Steamboat-Inspection Service was at first organized within the Treasury Department. There was no logical basis for this arrangement except perhaps the fact that the customs officers were charged with the enforcement of the inspection laws. An unsuccessful attempt was made in 1882-1883 to transfer this service, together with other bureaus at that time organized within the Treasury Department, such as the Revenue Marine Service, the Coast and Geodetic Survey, the Marine-Hospital Service, the Life-Saving Service, the Lighthouse Board, and the Revenue-Cutter Service, to the Navy Department,—all to be grouped under a Bureau of Mercantile Marine in the latter Department. A bill was introduced in the House of Representatives on January 2, 1883, upon the recommendation of the Secretary of the Navy to affect this transfer, but it met with decided opposition from the heads of these various bureaus.¹¹

¹¹ The main objection voiced by all of the officers concerned was the undesirability of intrusting the administration of the civil laws of the country to an armed branch of the government, supported and maintained for war purposes only. Two additional objections were voiced by the Supervising Inspector-General against the transfer of his particular service, namely, (1) That, while admitting on the part of naval officers superior educational, theoretical, and technical knowledge, yet the inspection of boilers and machinery was an operation requiring practical knowledge and experience, qualities

A proposal for administrative reorganization introduced in the Senate on December 4, 1901, met a more favorable reception. It was proposed to establish a Department of Commerce and Labor "to foster, promote and develop the foreign and domestic commerce, the mining, manufacturing, shipping, and fishery industries, the labor interests, and the transportation facilities of the United States," and to transfer to the new department all bureaus connected with, and germane to the work and duties thus assigned to it. The bill was received in the House and referred to the Committee on Interstate and Foreign Commerce on January 30, 1902, which committee reported favorably to the House on January 6, 1903. Not all of the proposed changes, however, were supported. With regard to the transfer of the Steamboat-Inspection Service to the new department, the committee reported: "Possibly the Steamboat-Inspection Service might be transferred without great injury to the public interests, but that bureau has largely to do with collectors of customs at the different ports, and it has not been thought wise by your committee at this time to recommend its transfer." The proposed bill, as finally passed, was substantially that introduced in the Senate in 1901. The act was approved by the President on February 14, 1903 (32 Stat. L., 825). By the express provisions of the act, all the duties, power, authority and jurisdiction, whether supervisory, appellate, or otherwise, previously imposed or conferred upon the Secretary of the Treasury by acts of Congress, and relating to the control of American and foreign shipping or to the Steamboat-Inspection Service and officers thereof, was transferred to, and imposed upon the Secretary of Commerce and Labor.

Following the transfer of the Steamboat-Inspection Service in which the naval officers were the inferiors of civilian boiler-inspectors, and (2) that the proposed change would subject licensed officers of steam-vessels to a technical and impractical examination that a large number of them could not pass, though having superior practical qualifications for the vocation they had been following, and having, in the past, largely contributed to the support of the inspection service.

vice to the new department, the board of supervising inspectors met in special session during the months of June and July, 1903, to make a thorough revision of the steamboat inspection laws and also of the rules and regulations made in pursuance thereof. After seven weeks of concentrated effort, a bill was framed embodying what seemed to be amendments necessary to harmonize the inspection laws and the organization of the service with modern developments in marine transportation. A bill was introduced in Congress on March 29, 1904, containing these proposed changes, but the bill failed of enactment. An event occurred shortly after, however, which impressed upon the members of Congress the urgent need of such legislation. On June 15, 1904, 957 persons, most of whom were women and children, lost their lives through the burning of the excursion steamer *General Slocum* in the East River, New York. On June 23, 1904, President Roosevelt appointed a commission to investigate the causes and to make recommendations as to future action. The report of this commission, submitted on October 8, 1904, placed responsibility largely upon the officers of the Steamboat-Inspection Service. The reasons given for the apparent inefficiency of the service were four in number: (1) An inadequate corps of inspectors at the port of New York; (2) opposition from the public to delays for purposes of reinspection, causing personal inconvenience; (3) reluctance of the owners of vessels to maintain life-saving and fire-fighting equipment in proper condition; and (4) inadequate supervision exercised by the supervising and local inspectors over the assistant inspectors who performed the actual work of inspection. The commission submitted a score of recommendations looking toward the improvement of the service. The Supervising Inspector-General of the Steamboat-Inspection Service, who was a member of the commission, concurred in the report except in placing responsibility upon the supervising inspector. The President indicated his entire ap-

proval of the report and ordered the dismissal of all officers of the service concerned.

Congress was now convinced of the necessity of legislative action, and a series of amendments was passed and approved on March 3, 1905 (33 Stat. L., 1022), which embodied many of the recommendations of the commission. Some of the more important changes and innovations were: (1) Provisions authorizing the board of supervising inspectors to prescribe measures to be taken by the owners of vessels to guard against and extinguish fire, and to establish regulations governing the exact number and character of life-saving equipment to be kept on board, subject to the approval of the Secretary of Commerce and Labor; (2) appeals could thereafter be taken to the supervising inspectors in case of the revocation of certificates of inspection by local boards, or to the Supervising Inspector-General in case of the revocation of the licenses of officers, when such action had received the approval of the supervising inspector; (3) assistant inspectors were expressly placed under the direction, supervision, and control of the local inspectors in the performance of their duties, and the Secretary of Commerce and Labor was authorized to detail assistant inspectors from one port or district to another, as the needs of the service might require; (4) salaries of local inspectors were definitely determined by the terms of the act, thus repealing the provision in the act of March 1, 1895, which based the salaries upon the number of vessels annually inspected;¹² (5) the Secretary of Commerce and Labor was empowered to call in session at any time, after reasonable public notice, an executive committee, to be composed of the Supervising Inspector-General and any two supervising inspectors, which committee, with the approval of the Secretary, should have power to alter, amend, add to, or re-

¹² The Secretary of Commerce and Labor, in his annual report for 1905, characterized this provision as being by far the most important change made. He pointed out that under the old system, as authorized by the act of 1895, "a substantial premium was thus actually placed on lax inspection."

peal any of the rules and regulations made by the board of supervising inspectors, such alteration, amendment, addition, or repeal to have the full force of law, when approved by the Secretary, and to continue in effect until thirty days after the adjournment of the next meeting of the board of supervising inspectors.

This last innovation made possible changes in the rules and regulations for the administration and enforcement of the steamboat inspection laws to meet emergencies which often arose due to the rapid changes and improvements in the practice of steam engineering and steam navigation. The Secretary of Commerce and Labor took advantage of the authority thus granted him on two occasions in the fiscal year following the passage of the act; and in his annual report for 1906 the Supervising Inspector-General commented upon the work of the committee as showing conclusively "that its establishment was not only important but wise legislation," and that its necessity had been fully proven.

A number of acts were passed in 1906 and the years following which imposed new activities upon the service and enlarged the scope of its work. Some of the more important provisions contained in these acts are the following:

(1) Vessels of fifteen gross tons or less, propelled in whole or in any part by gas, gasoline, petroleum, or electricity could be operated only by persons licensed by a board of local inspectors;¹³

¹³ This provision was in partial response to the forceful recommendation made by the Supervising Inspector-General in his annual report for 1905 for the extension of the act of January 18, 1897, to all motor-driven vessels of whatever tonnage. He charged that many of these vessels were built with the designed purpose of having them a fraction under fifteen tons, which was the maximum tonnage exempted from the restrictions of the law requiring inspection and licensed officers, if engaged in carrying freight or passengers for hire; there being no restriction if the vessel was not used for commercial purposes. He continued: "These craft are used for both commercial and pleasure purposes, and many of them being navigated by inexperienced, incompetent, and irresponsible persons, are a constant menace to life and property. The laws and the rules and regulations applicable to other vessels which must be ob-

(2) Local inspectors were given power to determine the necessary complement of officers and crews of all vessels of the United States subject to inspection, and to enter them upon the ship's certificate of inspection, such entry being subject to appeal to the supervising inspector and from that officer to the Supervising Inspector-General;¹⁴

(3) Sea-going barges were required to submit to an annual inspection of hull and equipment;

(4) The chairman of the Lighthouse Board, the Supervising Inspector-General, and the Commissioner of Navigation were charged to convene as a board, when called by the Secretary of Commerce and Labor, to establish certain regulations concerning the navigation of sea-going barges and towing vessels within any of the inland waters of the United States;

(5) The permanent indefinite appropriation for the salaries and expenses of the service was repealed and the Secretary of Commerce and Labor was directed to submit estimates annually for the same beginning with the fiscal year of 1912;

(6) The supervising inspectors were directed to make their annual reports to the Supervising Inspector-General instead of to themselves meeting as a board, although the board was still authorized to examine the work of all inspectors in the service and to correct mistakes when possible;

(7) An additional board of local inspectors was established.¹⁵

served to insure safe navigation are practically ignored by these motor vessels; and as a consequence, accidents resulting in loss of life, occasioned by their reckless navigation frequently come to the notice of this office, but the Department is powerless to take any action to punish the guilty or to protect the innocent from the result of ignorance and incompetency."

¹⁴ This amendment was suggested as highly desirable by the Supervising Inspector-General in his annual report for 1907.

¹⁵ The provisions here enumerated give, in summarized form, the most important changes made by the following acts: March 17, 1906 (34 Stat. L., 68); May 16, 1906 (34 Stat. L., 193); May 28, 1906 (34 Stat. L., 204); June 11, 1906 (34 Stat. L., 230); February 8, 1907 (34 Stat. L., 881); April 2, 1908 (35 Stat. L., 55); May 28, 1908 (35 Stat. L., 424); June 25, 1910 (35 Stat. L., 831); May 22,

One particularly important act passed during this period, namely, the act of June 9, 1910 (36 Stat. L., 462), and known as the "Motor-Boat Act," is deserving of special attention. Motor-boats were defined as vessels propelled by machinery and not more than sixty-five feet in length, except tug-boats and tow-boats propelled by steam. All such motor-boats more than forty feet in length and propelled by machinery driven by steam were made subject to the inspection of the engine, boiler, or other operating machinery by the local inspectors of steam vessels and to their approval of the design thereof. Regulations as to lights, whistles, fog-horns, and bells were established. All motor-boats carrying passengers were required to carry one life-preserver for every passenger on board, and were not to be operated except in charge of a person duly licensed by a local board of inspectors. No examination was to be required as a condition of obtaining such a license, but the license could be revoked or suspended by the local board of inspectors for misconduct, gross negligence, recklessness in navigation, or violation of law upon the part of the holder.

By an act of Congress approved March 4, 1913 (37 Stat. L., 736), a new executive department to be denominated the Department of Labor, was organized. The Steamboat-Inspection Service was thereafter a bureau of the Department of Commerce and under the direction of the Secretary of Commerce.¹⁶

Several important amendments have been made by Congress to the inspection laws since 1913, the most important of which are as follows:

1912 (37 Stat. L., 116); January 24, 1913 (37 Stat. L., 650); March 3, 1913 (37 Stat. L., 732); and March 4, 1913 (37 Stat. L., 1013).

¹⁶ In all quotations and references to existing law relating to the power of the head of the Department, the term Secretary of Commerce has been used in this monograph as that term was substituted for Secretary of the Treasury and Secretary of Commerce and Labor by the acts of February 14, 1903, and March 4, 1913, respectively.

(1) Regulations restricting the transportation of dangerous and inflammable articles on passenger vessels were modified to permit the carriage of crude petroleum, gunpowder, the use of kerosene and lubricating oils as stores, and the transportation and use of gasoline or any other product of petroleum for the operation of engines to supply an auxiliary lighting and wireless system, under regulations to be prescribed by the board of supervising inspectors;

(2) Licenses of masters, mates or pilots of steam-vessels were not to be renewed by local boards of inspectors until applicants had passed a satisfactory examination for color-blindness;¹⁷

(3) By executive order of September 4, 1914, issued under authority of the Ship Registry Act of August 18, 1914 (38 Stat. L., 693), the requirements as to inspection of foreign-built vessels registered under the latter act were suspended for two years;

(4) Supervising inspectors were authorized to decrease, at their discretion, the number of passengers vessels were permitted to carry by the local inspectors, and the approval of the supervising inspector must be secured for an increase in such number or for a special permit in case of excursions;¹⁸

¹⁷ This amendment merely gave statutory effect to and made more inclusive, a rule of the board of supervising inspectors established in 1889 requiring pilots of steam vessels to pass a satisfactory examination for color blindness as a condition to the renewal of their license. The rule adopted by the board at that time was characterized by the Supervising Inspector-General in his report for 1880 as "probably the most important ever adopted by the board."

¹⁸ The passage of this and other amendments noted below was the direct result of another startling marine disaster, namely, the sinking of the excursion steamer *Eastland* while lying at her dock at Chicago, resulting in the loss of 812 lives. The disaster was made the subject of a special investigation under the personal direction of the Secretary of Commerce, the outcome of which was a series of recommendations submitted by the Board of Inquiry in its report dated August 5, 1915, a number of which were made the subject of legislation by Congress. The problem of preventing the overloading of steamers carrying passengers had for some time been the subject of discussion by the Supervising Inspector-General in his reports. Previous to the passage of the above amendment the sole responsibility

(5) Provision was made to permit appeals, by persons directly interested or affected by *any* decision or action of the local inspectors, to be taken to the supervising inspector of the district, and from the decisions of the latter to the Supervising Inspector-General, whose judgment in all cases was to be final;

(6) Supervising inspectors were vested with power to investigate and decide questions in cases of disagreement between the members of local boards within their respective districts, and to review any decision or action of the same upon their own motion;

(7) The Supervising Inspector-General was given authority, in the same manner, to review any decision or action of either the supervising or local inspectors, and his decision, when approved by the Secretary of Commerce, was to be final;

(8) When necessary, reviewing officers were empowered to administer oaths and to summon and compel the attendance of witnesses by a similar process as that employed by the United States district courts;

(9) Additions to the personnel of the service were provided for, including boards of local inspectors and assistant inspectors. The Secretary of Commerce was given authority to appoint not to exceed four traveling inspectors for the improvement of the service, when in his judgment they might be necessary, and also a Deputy Supervising Inspector-General who was to be the chief clerk of the bureau and to act in the absence of the Supervising Inspector-General.¹⁹

(10) The activities of the service in regard to inspection were extended to include all steam-vessels owned or operated

for determining the number of passengers that could be carried with safety was placed upon the local boards of inspectors. The effect of this amendment was to shift this responsibility in large measure to the supervising inspectors of the respective districts.

¹⁹ The service had had, prior to the passage of this act, a chief clerk who was acting Supervising Inspector-General in the absence of that officer. The effect of this act was to create the office of Deputy Supervising Inspector-General.

by the United States Shipping Board or any corporation organized or controlled by it;

(11) Cargo vessels documented under the laws of the United States were given permission to carry on board not to exceed sixteen persons in addition to their crew when navigating between any ports or places in the United States or its districts, territories, or possessions, or between any such port or place and any foreign port, or from any foreign port to another foreign port and such vessels should not be classed as "passenger vessels" within the meaning of the inspection laws. Such vessels were not exempted from regulations respecting life-saving equipment, however, and were required to give notice to such additional persons carried of the presence of dangerous articles on board or of any other condition or circumstance which would constitute a risk of safety for passenger or crew.²⁰

Special mention should be made of the act approved March 4, 1915 (38 Stat. L., 1164), and known as the "Seamen's Act," which added materially to the work of the board of supervising inspectors and imposed a new activity upon the service. The board was charged with the establishment of rules and regulations, to be approved by the Secretary of Commerce, governing the number and character of life-saving appliances required by the law to be kept on board, and local inspectors were authorized to examine and grant cer-

²⁰ The above amendments and changes in the inspection laws are contained in the following acts: May 25, 1914 (38 Stat. L., 381); July 16, 1914 (38 Stat. L., 454); July 17, 1914 (38 Stat. L., 511); October 22, 1914 (38 Stat. L., 765); March 3, 1915 (38 Stat. L., 893); February 14, 1917 (39 Stat. L., 918); February 26, 1917 (39 Stat. L., 942); March 29, 1918 (40 Stat. L., 499); May 11, 1918 (40 Stat. L., 548); June 10, 1918 (40 Stat. L., 602); July 2, 1918 (40 Stat. L., 739); October 25, 1919 (41 Stat. L., 305); and June 5, 1920 (41 Stat. L., 988). By express provision in the act of 1920, known as the "Merchant Marine Act, 1920," rules and regulations made by or affecting the Steamboat-Inspection Service are excluded from the general grant of authority given to the Shipping Board to request departments, boards or bureaus to modify rules and regulations made by the latter affecting shipping in the foreign trade, and to approve new rules and regulations made by such departments, boards, or bureaus.

tificates of service to able seamen, such certificates to be accepted as prima facie evidence of the possessor's rating as an able seaman. Each local board was required to keep a complete record of all certificates of service thus issued, and to keep on file such affidavits as might be submitted by applicants. Boards of local inspectors were authorized by the Secretary of Commerce, following the passage of this act, to also issue certificates to persons qualified to serve as life-boat men.

The history of the origin and development of the Steamboat-Inspection Service, which has been rapidly surveyed, necessarily has disclosed to a considerable degree the scope of the activities of the service, as it is functioning at the present time, and the progress made from time to time in improving and enlarging the organization of the service, since the historical development of any government bureau, such as the Steamboat-Inspection Service, is to be found only in the acts of Congress creating the service and enlarging the field of its work to meet new conditions and to increase the value of service it performs for the nation. In the remaining chapters of this monograph a more detailed and unified description of the present activities and organization of the service will be undertaken.

It is interesting to note, in passing, that the title "Steamboat-Inspection Service" is nowhere authorized by law. The present law governing the service, in defining the qualifications of the Supervising Inspector-General, says that he "shall be selected with reference to his fitness and ability to systematize and carry into effect all the provisions of law relating to the Steamboat-Inspection Service, and also provides that the Secretary of Commerce may detail assistant inspectors "as the needs of the Steamboat-Inspection Service may require." These two instances are the only references to the title made in the statutes. The Secretary of Commerce and the Supervising Inspector-General have suggested in their recent reports that because of the growth of the service beyond

the inspection of steam-vessels the title of the bureau should be changed. The latter, in his annual report for 1917, said in this connection: "The work of the service has also expanded in connection with the inspection of motor-boats, and hence the Department very properly suggested that the name of the service be changed from Steamboat-Inspection Service to Marine-Inspection Service, because the service touches in its activities not only the inspection of steamers but also the inspection of motor-boats and sailing vessels, and it has to do not only with the licensing of officers of steamers but also the licensing of officers of motor vessels and the certification of seamen and life-boat men."

CHAPTER II

ACTIVITIES

In the performance of its function, which is that of administering the laws of the United States enacted for the purpose of insuring that vessels are constructed, equipped, and manned in such a way as to afford the maximum degree of safety in their operation, the Steamboat-Inspection Service is at present engaged in a considerable number of specific activities—all directed toward minimizing the dangers and hazards of marine transportation. It is proposed, within the limits of this chapter, to present, in summary form, a survey of the activities of this service, noting the legal authorization for engaging in each particular type of work, and giving a description of the present methods employed by the service. No attempt will be made, however, to give a complete account of the provisions of law setting forth the specific requirements to which vessels subject to regulation must conform. These are, in many instances, technical in character and vary to a considerable degree according to the different types and sizes of vessels regulated. The same is true, to an even greater extent, of the rules and regulations established by the board of supervising inspectors to insure an efficient and uniform administration of the inspection laws, which, when approved by the Secretary of Commerce, have all the force and effect of law.

Before beginning a survey of the activities of the Steamboat-Inspection Service, no better explanatory statement concerning the general scope of those activities can be given than that of the Supervising Inspector-General in his annual report for the fiscal year ending June 30, 1911:

While the Steamboat-Inspection Service was organized, as

its name implies, for the purpose of inspecting steamboats, modern development of the means of propelling vessels has brought to the front the gasoline engine, and with it the motor-boat, and while for certain purposes the service is required to inspect gasoline motor-boats of a certain class the service comes into close contact with the motor-boat situation through the licensing of operators of motor-boats carrying passengers for hire. Furthermore, this service is charged by the Department with the responsibility of passing upon the buoyant cushions used in motor-boats for pleasure purposes, and this has entailed no little work upon the central office as a result of the tests that have to be conducted of cushions submitted, and of the numerous questions that have to be answered in regard to the life-saving equipment of certain classes of motor-boats.

As the manufacture of dangerous articles has developed, the number of questions asked with regard to the application of section 4472, Revised Statutes, relating to the transportation of dangerous articles on vessels carrying passengers continues to increase, and there are no more important rulings than those relating to the transportation of dangerous articles under section 4472, Revised Statutes. As the gasoline engine has brought into prominence the motorboat, so it has also brought to the attention of the Service the transportation of automobiles, a matter also covered by section 4472, Revised Statutes, and it becomes more apparent every day that the masters and owners of vessels must strictly enforce the law with reference to the transportation of automobiles.

The work being done by this Bureau for other departments of the Government and for other bureaus of this Department is constantly increasing. This work consists of investigations made by this Bureau of disasters affecting vessels owned by other bureaus of this Department; the Bureau has also to do with the inspection of material for boilers used in the vessels of other departments of the Government; and numerous requests are received for the inspection of boilers in vessels owned by other bureaus of this Department, as well as boilers in public buildings.

For purposes of description and presentation, the activities of the service may be regarded as falling under the following heads:

1. Inspection of vessels—their construction and equipment.
2. Examination and licensing of marine officers.
3. Examination and certification of seamen and life-boat men.
4. Determination of necessary complement of officers and crew and accommodations therefor.
5. Conduct of investigations of marine casualties and violations of the inspection laws.
6. Establishment of regulations to prevent collisions.
7. Regulation of the transportation of passengers and merchandise.

Inspection of Vessels. The annual inspection of the hulls, boilers, machinery, and general equipment of vessels subject to the steamboat inspection laws may be said to constitute the major activity of the Steamboat-Inspection Service. A large portion of the field force is constantly engaged in this work, and it was primarily to perform such work that the service was first instituted in 1838. The law provides that "all steam-vessels (including every vessel propelled in whole or in part by steam) navigating any waters of the United States which are common highways of commerce or open to general or competitive navigation, excepting public vessels of the United States, vessels of other countries, and boats propelled in whole or in part by steam for navigating canals" shall be subject to the inspection laws. By the act of August 7, 1882 (22 Stat. L., 346), as amended by the acts of February 15, 1902 (32 Stat. L., 34) and March 17, 1906 (34 Stat. L., 68), "all foreign private steam-vessels carrying passengers from any port of the United States to any other place or country," are made subject to the inspection laws, exceptions being allowed, however, in certain cases, by permission of the Secretary of Commerce. Further, by the act of March 3, 1897 (29 Stat. L., 687), the Secretary of Commerce is authorized "to direct the inspection of any foreign vessel, ad-

mitted to American registry, its steam boilers, steam pipes, and appurtenances, and to direct the issue of the usual certificate of inspection, whether said boilers, steam pipes, and appurtenances are or are not constructed pursuant to the laws of the United States, or whether they are or are not constructed of iron stamped pursuant to said laws." ¹ By an act approved October 25, 1919 (41 Stat L., 305), all steam vessels owned or operated by the United States Shipping Board or any corporation organized or controlled by it are made subject to the laws for the regulation of steam-vessels.

Inspection of Hulls. The inspection of the hulls of steam-vessels was first authorized by the act of July 7, 1838 (5 Stat. L., 304). Frequent changes have been made in the law since that time increasing the scope of this particular activity of the service. The law in force at the present time provides that:

The local inspectors shall, once in every year, at least, carefully inspect the hull of each steam-vessel within their respective districts, and shall satisfy themselves that every such vessel so submitted to their inspection is of a structure suitable for the service in which she is to be employed, . . . and is in a condition to warrant the belief that she may be used in navigation as a steamer, with safety to life. . . . The local inspectors shall, once in every year, at least, carefully inspect the hull of each sail vessel of over seven hundred tons carrying passengers for hire and all other vessels and barges of over one hundred tons burden carrying passengers for hire within their respective districts, and shall satisfy themselves that every such vessel so submitted to their inspection is of

¹ By Sec. 2 of an act entitled "An Act To provide for the admission of foreign-built ships to American registry for the foreign trade, and for other purposes," approved August 18, 1914 (38 Stat. L., 698), the President is authorized "whenever in his discretion the needs of foreign commerce may require, to suspend by order, so far and for such length of time as he may deem desirable, . . . the provisions of the law requiring survey, inspection, and measurement by officers of the United States of foreign-built vessels admitted to American registry under this act."

a structure suitable for the service in which she is to be employed . . . and is in condition to warrant the belief that she may be used in navigation with safety to life. . . .

The hulls of all ferry-boats, canal-boats, yachts or other small craft of like character propelled by steam, of all vessels of *above* fifteen gross tons carrying freight or passengers for hire, but not engaged in fishing as a regular business, propelled by gas, fluid, naphtha, or electric motors, of all seagoing barges of one hundred gross tons or over, and of all tug-boats, towing-boats and freight-boats, are made subject to inspection, as provided for in the section quoted above, by subsequent acts. By statutory enactment, the board of supervising inspectors is authorized to establish all necessary regulations required to carry out in the most effective manner the inspection of vessels. Consequently, the board issues general rules and regulations for the guidance of the local inspectors. In accordance with these regulations, local inspectors are authorized to make annual inspections "only on written application, presented to the United States local inspectors by the owner, master, or authorized agent of the vessel to be inspected." Section 4 of the General Rules and Regulations prescribed by the board in 1920, concerning the inspection of vessels, provides:

In the inspection of hulls of vessels, the inspector of hulls shall carefully inspect every accessible part of the hull, and carefully examine the wood or metal of which the hull is constructed to determine the condition of same, making all necessary hammer tests of hulls constructed of iron or steel. If the inspector shall not have satisfactory evidence otherwise of the soundness of the hull of a wooden vessel, he shall not give a certificate until the same shall be bored or opened up to his satisfaction.

Section 8 provides that the owner of every new vessel of over one hundred tons, when making application for the first

inspection, must furnish the local inspectors with a drawing or blueprint in plan and section, showing fully the general construction of the vessel, the kind of material used, the construction and location of bulkheads, and all details which bear upon the safety and durability of the ship.² This regulation was established by the board of supervising inspectors at their annual meeting in January, 1911, at the instance of the Supervising Inspector-General, who in his annual report for the fiscal year ending June 30, 1910, urged some such measure in order to give the local inspectors information as to the original construction of vessels. In his annual report for 1912, that officer declared that the result of the regulation thus adopted had been most beneficial, since inspectors had in their possession certain valuable information of which they were in complete ignorance prior to the passage of this rule. A defect was apparent, however, in that the blue prints were submitted to the local inspectors, not for *approval*, but merely for their *information*.

In the same report, therefore, it was urged that the board of supervising inspectors formulate rules for a definite American standard of hull construction, possibly adopting the rules of the American Bureau of Shipping, with certain advisable changes. The board concluded, however, after due deliberation and discussion, that sufficient authority did not exist for the *approval* of hull construction and for requiring certain detailed tests in regard to the same. Consequently, in his annual report for 1914, the Supervising Inspector-General urged that a corps of experts be stationed in the central office of the service to approve blue prints of proposed hull construction. Approval by such a body, in place of the local inspectors, was thought advisable "(1) because it would enable the Department to employ experts who are more familiar with

² The act of 1871, as amended by act of July 9, 1886 (24 Stat. L., 129), makes certain requirements as to the number, position, and construction of bulkheads on every seagoing steamer, and every steamer navigating the great northern or northwestern lakes, carrying passengers.

hull construction than the local inspectors, and (2) it would result in that uniform administration of the law with which the Supervising Inspector-General is charged." It was recognized, however, that to adopt such a system "would be a distinct departure from the principles that have heretofore governed the Steamboat-Inspection Service in the matter of the approval of certain things by local inspectors, as it would place that approving power in the central office, thereby relieving the local inspectors of much responsibility, as well as obtaining more expert advice and a more uniform administration of the law."

This recommendation received the approval of the Secretary of Commerce, but no action was taken by Congress. In the following year (1915) occurred the *Eastland* disaster, and added impetus was given to the demands for approval of hull construction. The board of inquiry appointed to investigate the sinking of this vessel recommended that a board of competent naval architects be created in the Department of Commerce "to pass (prior to their construction) upon the plans and specifications of all steam merchant vessels over 100 tons burden." Despite this recommendation and repeated urging in the reports of the Supervising Inspector-General, Congress has not as yet seen fit to act on this subject. In his annual reports for 1919 and 1920, the Supervising Inspector-General again called attention to the advantages to be derived from such action, both in assuring that ships would, in the future, have the proper stability of structure, and in the uniformity of administration made possible by a centralization of authority. Section 9 of the General Rules and Regulations prescribed by the Board of Supervising Inspectors for the inspection of vessels now provides that "in the inspection of hulls, boilers, and machinery of vessels, the rules promulgated by the American Bureau of Shipping respecting material and construction of hulls, boilers, and machinery, and the certificate of classification referring thereto, except where otherwise provided for by these rules

and regulations, shall be accepted as standard by inspectors of this service." ³

Inspection of Boilers. The inspection of the boilers of steam-vessels was also authorized for the first time in 1838, but, at the present time, the laws and regulations are much more exacting and detailed than those concerned with hull inspection.

The local inspectors shall also inspect the boilers and their appurtenances in all steam-vessels before the same shall be used, and once at least in every year thereafter, and shall subject all boilers to the hydrostatic pressure. All such vessels shall comply with the following requirements, namely: That the boilers are well made, of good and suitable material; that the openings for the passage of water and steam, respectively, and all pipes and tubes exposed to heat, are of proper dimensions and free from obstructions; that the spaces between and around the flues are sufficient; that flues, boilers, furnaces, safety valves, fusible plugs, low-water indicators, feed-water apparatus, gauge cocks, steam gauges, water and steam pipes connecting boilers, means of prevention of sparks and flames from fire doors, low-water gauges, means of removing mud and sediment from boilers, and all other such machinery and appurtenances thereof, are of such construction, shape, condition, arrangement, and material that the same may be safely employed in the service proposed without peril to life; and the local inspectors shall satisfy themselves by thorough examination that said requirements of law and regulations in regard thereto have been fully complied with. All boilers used on steam vessels and constructed of iron or steel plates, inspected under the provisions of section forty-four hundred and thirty, shall be subjected to a hydrostatic test, in the ratio of one hundred and fifty pounds to the square inch to one hundred pounds to the square inch of the working steam power allowed. No boiler or flue pipe, nor any of the connections therewith, shall be approved, which is made, in whole or in part, of bad material, or is unsafe in its form or dang-

³ A summary of previous recommendations in regard to hull construction and inspection is given in the annual report of the Supervising Inspector-General for 1915, pp. 23 et seq.

erous from defective workmanship, age, use, or other cause.⁴

As in the case of hull inspection, the above legislation has been extended to include ferry-boats, canal-boats, yachts, or other small craft of like character propelled by steam, all vessels of *above* fifteen gross tons carrying freight or passengers for hire propelled by gas, fluid, naphtha or electric motors, and all tug-boats, towing-boats, and freight-boats. Further, by act approved June 9, 1910 (36 Stat. L., 462), the engines, boilers, and other operating machinery on motor-boats more than forty feet in length which are propelled by machinery driven by steam, are made subject to the laws and rules for inspection. Rule VII, Section 10, of the general rules and regulations prescribed by the board of supervising inspectors makes it "the duty of both the hull and boiler inspectors to be present when the boiler is being tested by hydrostatic pressure" and both "shall observe and note the indication on the gauge."

Section 1, Rule II, of the rules provides as follows:

"The manufacturer of any boiler to be used for marine purposes shall furnish the inspectors of the district where such boiler or boilers are to be inspected duplicate blue prints or tracings fully descriptive of same in detail for their *approval*, one of which shall be kept on file in the office of the local inspectors and the other returned to the manufacturer." Section 24, Rule II provides that "duplicate blue prints or drawings of water-tube and coil boilers, with their specifications, shall be submitted for *approval* to the Board of Supervising Inspectors and the design approved by said board, before the boilers will be allowed to be used on any vessel coming under the jurisdiction of the Board of Supervising Inspectors." Thus Section 1 is limited to the approval of Scotch and similar boilers. It will be observed that the board has thus provided

⁴ The provisions of R. S. Section 4430 here referred to will be noted later in this chapter.

for the *approval* of boiler construction which, in the case of hull construction, it decided it did not have the legal authority to do. A rule authorizing the approval of blue prints of boilers was deemed lawful because of the detailed structural tests already provided in the law for boiler construction. The recommendations noted above for a centralization of approval of hull construction in the office of the Supervising Inspector-General also included that of boiler construction.

Inspection of Equipment. In addition to the annual inspection of the hulls and boilers of vessels, the local inspectors are required by law to examine every part of the equipment of such vessels, including life-boats, floats, rafts, life-preservers, and other life-saving apparatus, fire-extinguishers, hose, fire-buckets, and other appliances for fighting fires, and steering apparatus. In many cases the law prescribes in detail the number and the character of construction of such equipment, but in others the board of supervising inspectors is charged with prescribing standards and rules for the guidance of the local inspectors. The provisions of the present laws, and regulations made in pursuance thereof, relative to life-saving appliances and fire-fighting equipment, are in many cases concerned with technical details, and are too numerous to be quoted here. In summary form, they provide as follows:

Life-Saving Equipment. (1) Steamers navigating the ocean, or any lake, bay, or sound of the United States, are required to be provided with such numbers of life-boats, floats, rafts, life-preservers, line-carrying projectiles, and the means of propelling them, and drags, as will best secure the safety of all persons on board such vessel in case of disaster. The Board of Supervising Inspectors is empowered to fix and determine, by their rules and regulations, the character of such apparatus and equipment, as well as the character and capacity of pumps necessary to free the vessel of water in case of heavy leakage. The rules and regulations thus made, however, are

subject to the detailed provisions, limitations, and minimum requirements specified in the Seamen's Act of 1915 (38 Stat. L., 1164). (2) Every vessel subject to the laws for the regulation of steam-vessels is required, while in operation, to carry one life-preserver for each and every person allowed to be carried on said vessel by the certificate of inspection, including each member of the crew. (3) By the act of 1871, ferry-boats, canal-boats, yachts, and other small craft of like character propelled by steam were required to comply with such provisions of law for the better security of life as might be made applicable to them, by the regulations of the board of supervising inspectors. This act was amended by an act approved January 18, 1897 (29 Stat. L., 489), which extended the above requirements to include motor vessels of above fifteen tons carrying freight or passengers for hire. An act approved May 16, 1906 (34 Stat. L., 193) also required motor-driven vessels of fifteen gross tons or less carrying passengers for hire to carry one life-preserver, of the sort prescribed by the regulations of the board of supervising inspectors, for every passenger carried.

The latter act was in partial response to the recommendations made in the annual reports of the Supervising Inspector-General for 1904 and 1905 for an extension of the laws for the inspection of vessels to include all motor-boats of whatever size or tonnage. Even after the passage of the act of 1906, motor-boats used for pleasure purposes only, no matter what their size or the waters they navigated, were entirely exempted from all inspection. The Supervising Inspector-General continued to urge legislation requiring all motor-driven vessels, regardless of their size or of the purpose for which they might be used, to submit to a sufficient examination or inspection "to ascertain whether they are equipped with the proper lights and life-saving apparatus, and that the fuel tanks and engine are properly installed."

The repeated recommendations of this officer of the Steamboat-Inspection Service, combined with the rapidly increas-

ing use of motor-boats and numerous accidents resulting therefrom, led to the passage of the act of June 9, 1910 (36 Stat. L., 462), known as The Motor-Boat Act, the content of which was summarized in the preceding chapter. But the operators of such boats have experienced considerable difficulty in interpreting the exact application of this law, and the Supervising Inspector-General has urged its repeal, and the substitution of a statute "worded in terse, simple language that can be easily understood, not only by the officials of the department but by the public as well." Section 5 of the Motor-Boat Act requires that every vessel propelled by machinery and not more than sixty-five feet in length, except tug-boats and tow-boats propelled by steam, "shall carry either life-preservers or life-belts, or buoyant cushions, or ring-buoys or other device, to be prescribed by the Secretary of Commerce, sufficient to sustain afloat every person on board and so placed as to be readily accessible." All motor-boats carrying passengers for hire are required to carry one life-preserver, of the sort prescribed by the regulations of the board of supervising inspectors, for every passenger carried.

(4) Steam-vessels, navigating rivers only, except ferry-boats, freight-boats, canal-boats and towing-boats, of less than fifty tons, are subject to detailed regulations as to the character, number and construction of life-boats. Such vessels carrying passengers are required to provide a good life-preserver for every cabin passenger and also a good life-preserver or float for each deck and other class passenger which the inspector's certificate shall allow her to carry including the officers and crews, such life-preservers or floats to be kept in convenient and accessible places on such vessel in readiness for immediate use in case of accident.

(5) Every barge carrying passengers, while in tow of any steamer must also be provided with such life-preservers as shall be prescribed by the board of supervising inspectors. By an act approved May 28, 1908 (35 Stat. L., 424), sea-

going barges of one hundred gross tons or over are required to be equipped with at least one life-boat, and at least one life-preserver for each person on board, such to be approved by the board of supervising inspectors.

The sinking of the passenger steamer *Titanic*, and the loss of life involved, led to the calling of the "International Conference on Safety of Life at Sea." This conference, which was held in London from November 12, 1913, to January 20, 1914, was participated in by representatives of the principal maritime nations of the world. The purpose of the conference was to formulate rules regarding safety of life at sea which would be of universal application. The convention concluded on January 20, 1914, was signed by the representatives of all the nations parties thereto, and the results of the conference were submitted to the President and Congress by the American delegates, one of whom was the Supervising Inspector-General of the Steamboat-Inspection Service, with favorable recommendations.⁵

The Senate failed to ratify the convention, but practically all of the recommendations as to life-saving equipment made by the International Conference, however, which constituted a large and important part of the convention, were embodied in the Seamen's Act approved March 4, 1915 (38 Stat. L.,

⁵ The Commissioner of Navigation, also a delegate to the conference, in his annual report for 1914 said in this connection: "The international convention is the most important step ever taken by maritime nations to promote the safety of life at sea, and it is to be trusted that the Senate will consent to its ratification before December 31, 1914, when ratifications, by the terms of the convention, were to be deposited at London. The convention was ratified by the German Reichstag in May, and the British Parliament passed on August 10 the bill to give effect to the convention. Before the outbreak of the European war in August the preliminary steps for ratification had been taken in France, Spain, the Netherlands, Belgium, Italy, Austria, and Hungary, and at that time ratification was expected in the early autumn. The Parliaments of Denmark and Sweden do not assemble until early in 1915, so those powers can not ratify until that date. The war will undoubtedly delay until beyond July 1, 1915, the time when the convention shall go into effect, but legislation by Congress will be necessary after the convention shall have been ratified".

1164), the contents of which were noted in the preceding chapter.

Steering Apparatus. The present law provides that every steamer carrying passengers shall be provided with such tiller ropes, tiller rods, or chains for the purpose of steering and navigating the vessel, and such bell-pulls for signalizing the engineer from the pilot house, and such tubes or other arrangement to repeat back the signal to the pilot house, as may be prescribed by the board of supervising inspectors, with the approval of the Secretary of Commerce.

Fire-fighting Equipment. (1) Every steamer carrying passengers or freight must be provided with suitable pipes and valves attached to the boiler to convey steam into the hold and to the different compartments thereof to extinguish fire, or such other suitable apparatus as may be prescribed by the regulations of the board of supervising inspectors, with the approval of the Secretary of Commerce, for extinguishing fire in the hold and compartments thereof by the introduction through pipes into such hold and compartments of carbonic acid gas or other fire-extinguishing gas or vapor. Precautions to be taken to prevent fires from stoves, chimneys, and boilers are prescribed, and the local inspectors are authorized to require all other necessary provisions to be made throughout such vessel to guard against loss or danger from fire, before granting a certificate of inspection.

(2) Passenger steamers are required to have on board ready for use steam and hand fire-pumps of a certain number and capacity, varying according to the number of passengers carried and the character of the freight on board.

(3) All such other provisions must be made on every steamer carrying passengers or freight, to guard against and extinguish fire, as may be prescribed by the board of supervising inspectors and approved by the Secretary of Commerce.

(4) The board of supervising inspectors may require steamers carrying either passengers or freight to be provided with such number and kind of portable fire-extinguishers as,

in their judgment, may be necessary to protect such vessels from fire when moored or lying at a wharf without steam to work the pumps.

(5) Steam-vessels navigating rivers only, and barges carrying passengers while in tow of any steamer are required to have such fire buckets, axes, and water barrels, kept in convenient places and ready for use, as may be prescribed by the board of supervising inspectors.

(6) Section 6 of the Motor-Boat Act of 1910 provides that every motor-boat and also every vessel propelled by machinery other than by steam, more than sixty-five feet in length, shall carry ready for immediate use the means of promptly and effectually extinguishing burning gasoline.

With the exception of Section 5 of this act, which, as was noted above, provides that the Secretary of Commerce alone shall determine what life-saving appliances shall be carried by motor-boats, both the board of supervising inspectors and the Secretary of Commerce must approve all instruments, machines, and equipment for the better security of life to be used on any steam-vessel. To this end, the board of supervising inspectors frequently conducts tests to determine the value of such new appliances as may be invented from time to time, and prescribes standards, with the approval of the Secretary of Commerce, to guide the local inspectors in their inspection of such equipment. Whenever any inspector or assistant inspector, in the performance of his duty, finds on board any vessel subject to regulation, as part of the required equipment thereof, any equipment, machinery, apparatus, or appliances not conforming to the requirements of law, he is authorized to require the same to be placed in proper condition by the owner or master of the vessel, if possible; and if the inspector or assistant inspector finds on board any such vessel any life-preserver or fire hose so defective as to be incapable of repair, he is given power to order it to be destroyed in his presence by such owner or master. The local inspectors have power to enforce these re-

quirements by revoking the vessel's certificate of inspection, and refusing to issue a new certificate until the requirements have been fully complied with, or until such action of the local inspectors shall have been reversed, modified, or set aside by the supervising inspector of the district.⁶

Certificates of Inspection. The issuance of a license or certificate of inspection by the local inspectors, as evidence that all the provisions of law relative to the inspection of the hulls, boilers, and equipment of vessels have been complied with, also had its beginning as an activity of the Steamboat-Inspection Service in the early act of 1838. The present law on this subject provides in part as follows:

When the inspection of a steam-vessel is completed and the inspectors approve the vessel and her equipment throughout, they shall make and subscribe a certificate, which certificate shall be verified by the oaths of the inspectors signing it, before the chief officer of the customs of the district or any other person competent by law to administer oaths. Such certificate shall be delivered to the master or owner of the vessel to which it relates, and one copy thereof shall be kept on file in the inspector's office and one copy shall be delivered to the collector or other chief officer of the customs of the district in which such inspection has been made, who shall keep the same on file in his office. If the inspectors refuse to grant a certificate of approval, they shall make a statement in writing and sign the same, giving the reasons for their disapproval.

The law further provides that a temporary certificate be issued to the master or owner of the vessel to take the place of and be a substitute for the regular certificate of inspection until the latter is delivered. No vessel required to be inspected under the provision of the law shall be navigated

⁶ Such other provisions of law requiring, in the equipment of vessels, suitable accommodations for the comfort and convenience of passengers and crew, and those requiring signal lights, foghorns, and whistles to prevent collisions will be reviewed later in this chapter under their proper headings.

without having on board an unexpired regular certificate of inspection or such temporary certificate, and one or the other of these certificates shall be placed by the master or owner in a conspicuous place in the vessel where it will be most likely to be observed by passengers and others, and there kept at all times, framed under glass, as evidence of the authority thereby conferred. Specific exceptions are permitted by statute in administration of these latter provisions. The local inspectors are required to keep a record of certificates of inspection of vessels, their boilers, engines, and machinery, and of all their acts in their examination and inspection of steamers, whether of approval or disapproval. A register, enrollment, or license shall not be granted, or other papers issued by any collector or other chief officer of customs to any vessel subject by law to inspection until all the provisions applicable to such vessel have been fully complied with and until the copy of the certificate of inspection for such vessel has been filed with the collector or other chief officer of customs.

By the act of 1838, the local inspectors received compensation from the owners of vessels inspected at the rate of \$5 for each hull and \$5 for each boiler so examined. The act of 1852, reorganizing the service, provided fixed salaries for the local inspectors, the fees for inspection to be turned over to the collector of customs, who would remit to the Treasury of the United States. By act of Congress approved June 19, 1886 (24 Stat. L., 79), the collection of all fees for the inspection, examining, and licensing of steam-vessels, including inspection-certificates and copies thereof, was discontinued.

It can readily be seen that the authority given to the boards of local inspectors to grant or withhold a certificate of inspection is very important, and vitally affects the owners of vessels subject to regulation. By the act of 1852, which created the office of supervising inspector, appeals were authorized from the decisions of the local inspectors to the

supervising inspector of the district. Again in the act of 1871, creating the office of the Supervising Inspector-General, more definite provision was made to permit appeals to be taken from the decisions of the local boards, regarding the construction or equipment of vessels and the issue or revocation of certificates of inspection and licenses of officers, to the supervising inspectors, who were given the same powers to summon witnesses and compel their attendance and to administer oaths as were conferred upon the local inspectors.

All previous acts authorizing appeals from the decisions of the boards of local inspectors were repealed by the act approved June 10, 1918 (40 Stat. L., 602), which provides as follows:

That whenever any person directly interested in or affected by any decision or action of any board of local inspectors of vessels shall feel aggrieved by such decision or action, he may appeal therefrom to the supervising inspector of the district; and a like appeal shall be allowed from any decision or action of a supervising inspector to the Supervising Inspector-General, whose decision, when approved by the Secretary of Commerce, shall be final: *Provided, however,* That application for such reexamination of the case by a supervising inspector or by the Supervising Inspector-General shall be made within thirty days after the decision or action appealed from shall have been rendered or taken: *And provided further,* That in all cases reviewed under the provisions of this Act where the issue is the suspension or revocation of the license of a licensed officer such officer shall be allowed to be represented by counsel and to testify in his own behalf.

The reviewing officer is given the same powers to administer oaths and to summon and compel the attendance of witnesses as are given to the local boards, and he may revoke, change, or modify the decision under review. The Secretary of Commerce is authorized to make such regulations as may be necessary to secure a proper enforcement of the provisions of this act.⁷

⁷ For violations of the provisions of law regarding the inspection

Reinspection of Vessels. Provision for the inspection of vessels, at other times than at the annual inspection, was made in the act of 1871. This particular section of that act, as amended by the act approved March 3, 1905 (33 Stat. L., 1023), is in force at the present time, and provides as follows:

In addition to the annual inspection, the local inspectors shall examine, at proper times, steamers arriving and departing to and from their respective ports, so often as to enable them to detect any neglect to comply with the requirements of law, and also any defects or imperfections becoming apparent after the inspection aforesaid, and tending to render the navigation of the vessels unsafe; and if they shall discover

of vessels and the rules and regulations prescribed by the board of supervising inspectors made in pursuance of the same various penalties are prescribed. Owners of steam-vessels not having an unexpired certificate of approval or an unexpired temporary certificate of approval placed and kept in the vessel as required are liable to a penalty of \$100 for every passenger received on board. Licensed officers of vessels are required to assist inspectors in their examination of any vessels to which such licensed officers belong and to point out all defects and imperfections known to them in the hull, equipments, boilers, or machinery of such vessel; also to make known to the inspectors at the earliest opportunity all accidents or occurrences producing serious injury to the vessel, her equipments, boilers, or machinery; and in default thereof the license of any such officer so neglecting or refusing shall be suspended or revoked. Inspectors, on the other hand, are forbidden to impart the name of any such licensed officers giving this information or the source of their information, to any person other than their superiors in the Steamboat-Inspection Service, under penalty of dismissal from the service. Every inspector who willfully certifies falsely on any matter concerning the inspection of a vessel is subject to a fine of not more than five hundred dollars, or imprisonment for not more than six months, or both. A similar penalty in addition to forfeiture of office is imposed upon inspectors who receive any fee or reward for their services, except that allowed to them by law.

A fine of one thousand dollars is imposed upon all persons constructing marine boilers of iron or steel plates not duly stamped and inspected according to law or who knowingly deliver for use a defective boiler. Furthermore, any person directly or indirectly concerned in altering the appurtenances of a marine boiler in such a manner as to defeat the regulations prescribed by law after the issuance of a certificate by the inspectors is guilty of a misdemeanor and subject to a fine of two hundred dollars, and may also be imprisoned not exceeding five years.

any omission to comply with the law, or that repairs have become necessary to make the vessel safe, the inspectors shall at once notify the master, in writing, stating in the notice what is required; and if the master deems the requirements unreasonable or unnecessary, he may apply for a reexamination of the case to the supervising inspector as provided in the preceding section.⁸ All inspections and orders for repairs shall be promptly made by the inspectors, and, when it can be safely done in their judgment, they shall permit repairs to be made where those interested can most conveniently do them.

The law further provides that whenever any local or supervising inspector ascertains to his satisfaction that any vessel subject to inspection is being navigated without complying with the terms of the vessel's certificate regarding equipment he shall order the owner or master of the vessel to correct such unlawful conditions, and may require that the vessel at once cease navigating and be submitted to reinspection. If his orders are not at once complied with, he shall revoke the vessel's certificate of inspection and no new certificate shall be again issued until all requirements have been complied with. Any vessel operating or navigating after the revocation of her certificate of inspection and before the issuance of a new certificate, shall, upon application by the inspector to any district court of the United States having jurisdiction, and by proper order or action of the court, be seized summarily by way of libel and held without privilege of release by bail or bond until a proper certificate of inspection shall have been issued. The master or owner of any vessel whose certificate has been thus revoked has the privilege, within thirty days, of an appeal to the Secretary of Commerce for a reexamination of the case, and upon such appeal the Secretary has power to revise, modify, or set aside the action of the local or supervising inspector and direct the issuance to the vessel of her

⁸ The section here referred to is R. S. Section 4452 which permits the master or owner of a vessel to appeal from the decision of a local board to the supervising inspector of the district who has authority to revoke, change or modify the decision of such local board.

original certificate or a new certificate of inspection.

Under the present regulations established by the board of supervising inspectors, every excursion and ferry steamer is required to be reinspected at least three times during the year for which the certificate of inspection was issued, or during the season of navigation. With respect to the subject of reinspections, the Supervising Inspector-General in his report for 1915 expressed the opinion that such reinspections were not less important than the annual inspections, "since the purpose of reinspection is to see that the equipment of a vessel is kept up, and judging from reports received at this office from local inspectors it would appear that many vessels would not be in good condition after the annual inspection were it not for the repeated reinspections. In the annual inspection application is made to the inspectors to have this work done, but when a reinspection is made the inspectors take the initiative and visit the vessel without prior notice."

Inspection and Approval of Boiler Plates. Reference has already been made to the statutory requirement that the boilers of steam vessels subject to inspection must be constructed with steel plates which have been inspected and stamped by an officer of the Steamboat-Inspection Service. Section 4430 of the Revised Statutes, dating back to the act of 1871, provides as follows:

Every iron or steel plate used in the construction of steamboat-boilers, and which shall be subject to a tensile strain, shall be inspected in such manner as shall be prescribed by the board of supervising inspectors and approved by the Secretary of Commerce, so as to enable the inspectors to ascertain its tensile strength, homogeneousness, toughness, and ability to withstand the effect of repeated heating and cooling; and no iron or steel plate shall be used in the construction of such boilers which has not been inspected and approved under those rules.

To meet the rapid growth of the work of the service and

to facilitate the inspection of boiler plates, this section was amended, by act of Congress approved January 22, 1894 (28 Stat. L., 28), which authorizes the Supervising Inspector-General, under the direction of the Secretary of Commerce, to detail assistant inspectors from any local inspection district where they may be employed, to inspect iron or steel boiler plates at the mills where they are manufactured; and if the plates are found in accordance with the rules of the supervising inspectors, the assistant inspectors are authorized to stamp them with their initials followed by the letters and words "U. S. Assistant Inspector." Material so stamped shall be accepted by the local inspectors in the district where such material is to be manufactured into marine boilers as being in full compliance with the requirements.

Manufacturers of iron or steel plates, made for use in the construction of steamboat-boilers, are also required to stamp the same distinctly and permanently with the name of the manufacturer, the place where manufactured, and the number of pounds of tensile strength it will bear to the sectional square inch.⁹

Inspection and Approval of Equipment. It has also been found a great aid in facilitating the work of the inspection of the equipment of vessels, to inspect and approve such equipment at the place where manufactured. The construction of life-boats, life-rafts, and life-preservers is made subject to the approval of the proper officers of the Steamboat-Inspection Service under the Seamen's Act of 1915 and the regulations of the board of supervising inspectors adopted in pursuance thereof. For example, supervising inspectors of

⁹ Any person who affixes a forged or counterfeit stamp such as authorized to be put on by an assistant inspector, shall be deemed guilty of a felony and shall be fined not less than one thousand dollars, and imprisoned not less than two years nor more than five years. The minimum penalty above provided for is also imposed upon any person who counterfeits any of the marks or stamps prescribed for boiler-iron or steel plates, or who causes to be stamped falsely any such plates.

districts where life-boats are built are authorized "to detail an assistant or local inspector to any place where life-boats are being built, whose duty it shall be to carefully inspect and examine the construction of such life-boats; and he shall satisfy himself that such life-boats are constructed in accordance with the drawings, or blue prints, and specifications furnished by the builders." Such drawings, or blue prints, and specifications showing and explaining the construction of life-boats must be furnished by the builders to the supervising inspector of the district. When the assistant or local inspector approves the construction of the boat, he is directed to stamp his initials, together with the letters "U. S. I." on a plate required to be affixed to the boat by the builder, which also contains the builder's name, number of the boat, date of construction, cubical contents, and number of persons the boat will carry. The initials of the assistant or local inspector are satisfactory evidence to all parties interested that the boat has been constructed in accordance with the drawings, or blue prints, and specifications on file. Similar regulations have been established by the board of supervising inspectors regarding the construction of life-rafts. The complete installation of all mechanical boat davits is required to be tested and demonstrated for strength and efficiency at the place of manufacture, in the presence of an inspector, and if the inspector is satisfied that the device is efficient in strength and operation, he is authorized to stamp it, as in the case of life-boats and rafts.

Samples of every type of life-preserver, ring life-buoy, line-carrying gun, and fire-extinguisher are tested to determine whether they meet the requirements of the board of supervising inspectors. In the case of life-preservers, samples must be accompanied by specifications, blue prints, or drawings, in triplicate, and they are approved only after a satisfactory service test has been witnessed by the board of supervising inspectors, an executive committee thereof, or by the Committee on Life-Saving Appliances. Samples of buoys and line-

carrying guns are also tested and approved by the board or a committee thereof, but tests of fire-extinguishers are now made by the Bureau of Standards and a report made by that bureau to the board, which then determines whether the extinguishers shall be approved for use on vessels subject to inspection. The supervising inspector of the district is authorized to detail a local or assistant inspector to any place where life-preservers or ring-buoys are manufactured to examine and stamp them if in accordance with the requirements of the board. Life-preservers and buoys bearing such stamp are accepted as meeting all requirements of law and regulations as to original construction by inspectors of the service.

Inspection for Other Departments. In addition to the inspection of vessels of the merchant marine, the local inspectors also examine, on request by the proper department, the boilers of Government vessels, and the boilers in public buildings, and they also test steel plate used in the construction of boilers for Government vessels when requested. The present Supervising Inspector-General of the service, testifying before the Committee on Merchant Marine and Fisheries of the House of Representatives in January, 1920, in answer to a question with regard to the extent of the work performed by the service for other departments, said:

Naval vessels are not subject to inspection by our office and we do very little work for them. Once in a while they may ask us probably to inspect a piece of steel for them for one of their boilers. Two of the vessels of the Army Transport Service are inspected by our service and, under the regulations of the Army Transport Service, have to meet our rules and regulations and to meet the law. They are inspected just the same as any other vessel. All of the vessels of the Engineer Department and the Mississippi River Commission are inspected by us. . . . Public vessels of the United States, that means those vessels whose title is vested in the United States, are not subject, under the law, to inspection; but under

the rules and regulations of the War Department and of the different departments and bureaus who own those vessels, they subject those vessels to inspection. We pass upon their boilers—their boiler construction; we inspect the boiler at every army post in this country and all public buildings. They call upon us to inspect those boilers and we are always ready and have always done it.

The total number of Government vessels inspected by the service for the fiscal year ending June 30, 1920, was eighty-two, and the total number of boilers 2096.

The rapid increase of the American merchant marine during the war period, largely under the operation and control of the United States Shipping Board, greatly enlarged the duties thus imposed upon officers of the Steamboat-Inspection Service. The bureau was called upon by the Shipping Board to examine the interned German vessels after seizure and the damage that was found to have been done to those vessels greatly increased the magnitude of the task. The inspectors were also busily engaged in coöperating with the recruiting service of the Shipping Board in furnishing information with reference to the officers who were available to man the ships, and also in approving the applications of persons who desired to enter the nautical schools then being conducted by the recruiting service of the board. By an act approved Oct. 25, 1919 (41 Stat. L., 305), all vessels owned and operated by the United States Shipping Board or by any corporation under its supervision and control were expressly made subject to inspection by the officers of the Steamboat-Inspection Service.

It is quite evident that the work of inspection for other departments performed by this service, for which it receives no compensation except traveling expenses incurred therein, constitutes a considerable added burden upon the limited personnel. It is interesting to note that the Secretary of Commerce and Labor, in his annual report for 1908, suggested an extension of the work of the service to an inspection of

locomotive boilers and equipment, as the best means of preventing the appalling loss of life due to locomotive boiler accidents. Such an extension, of course, would have necessitated a large extension to the force of inspectors. The recommendation, however, failed to meet the approval of Congress.¹

Examination and Licensing of Marine Officers. The issuance of licenses by the boards of local inspectors to engineers and pilots of steamers carrying passengers was first authorized, as an activity of the service, in 1852. The act of 1871 provided for the licensing of masters, chief mates, engineers and pilots of all steam-vessels, and made it unlawful to employ any person in any of these capacities who was not licensed. This statute was amended by the act of December 21, 1898 (30 Stat. L., 764), to include the masters and chief mates of sail vessels of over 700 tons and all other vessels or barges of over 100 tons burden carrying passengers for hire. The law now in force provides:

The boards of local inspectors shall license and classify the masters, chief mates, and second and third mates, if in charge of a watch, engineers, and pilots of all steam-vessels, and the masters of sail vessels of over seven hundred gross tons, and all other vessels of over one hundred gross tons carrying passengers for hire. It shall be unlawful to employ any person or for any person to serve as a master, chief mate, engineer or pilot of any steamer or as master of any sail vessel of over seven hundred gross tons, or of any other vessel of over one hundred gross tons carrying passengers for hire who is not licensed by the inspectors; and anyone violating this section shall be liable to a penalty of one hundred dollars for each offense.

Under the provisions of the act of 1871, still in force, officers navigating tug-boats, towing-boats, and freight-boats

¹ The act of February 17, 1911 (36 Stat. L., 913) provides for the inspection of locomotive boilers by inspectors reporting to the Interstate Commerce Commission.

are also required to be licensed and are subject to the same provisions of law as officers navigating passenger steamers. The present law further requires that no ferry-boat, canal-boat, yacht, or other small craft of like character propelled by steam shall be navigated without a licensed engineer and a licensed pilot. By an act approved January 18, 1897 (29 Stat. L., 489), this provision was made applicable to "all vessels of above fifteen gross tons carrying freight or passengers for hire, but not engaged in fishing as a regular business, propelled by gas fluid, naphtha, or electric motors." An act approved May 16, 1906 (34 Stat. L., 193), provides that no vessel "of fifteen gross tons or less propelled in whole or in part by gas, gasoline, petroleum, naphtha, fluid, or electricity," while carrying passengers for hire, shall be operated or navigated except in charge of a person duly licensed for such service by the local board of inspectors. Section 5 of the Motor-Boat Act of 1910 modifies the above acts by providing that no motor-boat, defined in the act as a vessel "propelled by machinery and not more than sixty-five feet in length except tug-boats and tow-boats propelled by steam," shall be operated or navigated, while carrying passengers for hire, except in charge of a person duly licensed for such service by the local board of inspectors. No other licensed officers are required to be carried.

Examinations conducted by the boards of local inspectors to determine the qualifications of applicants requesting license certificates to serve as masters, mates, engineers and pilots, are required by law before such certificates can be granted. Exception is made, however, in the case of the operators of motor-boats, who are not obliged to submit to such examination to procure a license.¹⁰ Only the broad out-

¹⁰ This exemption in the law in the case of operators of motor-boats has been frequently and severely criticised by the Supervising Inspector-General. That officer, in his annual report for 1911, said in this connection: "At present no examination is required as the condition of obtaining such license, and it must be apparent to anyone who gives the matter thought that many persons have received

lines of the scope of these examinations are laid down in the statutes, such as the character, nationality, habits of life, age, knowledge, and experience of the applicant. More detailed rules for the conduct of such examinations are prescribed by the board of supervising inspectors, which vary, of course, according to the trade of the vessel and the grade of license desired.

Licenses are issued for a term of five years and may be renewed at the end of that time, provided (act approved October 22, 1914; 38 Stat. L., 765) "that no license as master, mate, or pilot of any class of vessel shall be renewed without furnishing a satisfactory certificate of examination as to color blindness."¹¹ The collection of fees for the issuance of such licenses was abolished by act of Congress approved June 19, 1886 (24 Stat. L., 79), which also abolished the collection of fees for the inspection of vessels. Local inspectors are required to keep a record of all licenses granted to masters, mates, pilots, and engineers, and of all rejections of applications. In the case of the latter, reports must be made in writing to the supervising inspectors of their respective districts containing all testimony received in connection with examinations. As was noted in the case of rejection of certificates of inspection any applicant for an officer's license meeting with an adverse decision from a board of local inspectors may appeal the same to the supervising inspector, and if the latter upholds the action of the local board, he may appeal further

license to operate motor-boats, who are in fact not competent to hold such license and who jeopardize not only their own life and the lives of persons traveling with them, but also the lives of persons traveling on inspected steamers commanded by duly licensed men, and it does seem that as a matter of public policy, for the purpose of protecting life and property, the operators of motor-boats should be required to pass a suitable examination before receiving license."

¹¹ This proviso was adopted to silence objections that had arisen against the earlier rule adopted by the board of supervising inspectors established in 1880. The objectors questioned the authority of the board to require visual tests of applicants for officer's licenses to be conducted by surgeons of the Public Health and Marine Hospital Service.

to the Supervising Inspector-General, whose decision in all cases is final. States and municipal governments are forbidden to impose upon pilots of steam-vessels any obligation to procure a license in addition to that issued by the United States, or to levy any pilot charges upon any steamer piloted by an officer licensed by the United States.

By an act approved May 28, 1896 (29 Stat. L., 188), all officers of vessels of the United States having charge of a watch, including pilots, must in all cases be citizens of the United States. The word "officers" as used in this act includes the chief engineer and each assistant engineer in charge of a watch on vessels propelled in whole or in part by steam. This statute was amended by an act approved March 4, 1907 (34 Stat. L., 1411), permitting Metlakatla Indians of Alaska to receive and obtain such licenses; and further by Sec. 2 of the act approved August 18, 1914 (38 Stat. L., 698), which authorized the President, "whenever in his discretion the needs of foreign commerce may require, to suspend by order, so far, and for such length of time as he may deem desirable, the provisions of law prescribing that all the watch officers of vessels of the United States registered for foreign trade shall be citizens of the United States."

For the enforcement of the statutory provisions with regard to the licensing of the officers of vessels the present law provides as follows:

Every master, chief mate, engineer, and pilot, who receives a license, shall, before entering upon his duties, make oath before one of the inspectors herein provided for, to be recorded with the certificate, that he will faithfully and honestly, according to his best skill and judgment, without concealment or reservation, perform all the duties required of him by law.

Every applicant for license as either master, mate, pilot, or engineer, under the provisions of this title [Regulation of Steam-Vessels] shall make and subscribe to an oath or affirmation, before one of the inspectors referred to in this title, to the truth of all statements set forth in his application for such license.

Any person who shall make or subscribe to any oath or affirmation authorized in this title and knowing the same to be false shall be deemed guilty of perjury.

Every licensed master, mate, pilot, or engineer who shall change, by addition, interpolation, or erasure of any kind, any certificate or license issued by any inspector or inspector referred to in this title, shall, for every such offense, upon conviction, be punished by a fine of not more than five hundred dollars or by imprisonment at hard labor for a term not exceeding three years.

Every master, mate, engineer, and pilot who shall receive a license shall, when employed on any vessel, within forty-eight hours after going on duty, place his certificate of license, which shall be framed under glass, in some conspicuous place in such vessel, where it can be seen by passengers and others at all times: Provided, that in case of emergency such officer may be transferred to another vessel of the same owners for a period not exceeding forty-eight hours without the transfer of his license to such other vessel; and for every neglect to comply with this provision by any such master, mate, engineer or pilot, he shall be subject to a fine of one hundred dollars, or to the revocation of his license.

Examination and Certification of Seamen and Life Boat Men. By the provisions of the important act passed by Congress approved March 4, 1915 (38 Stat. L., 1164), known as the Seamen's Act, a new activity was imposed upon the Steamboat-Inspection Service involving a large amount of work and necessitating a material increase in the number of employees in the service. The new activity thus authorized is the examination and certification of seamen and life-boat men. The express terms in which this additional duty is imposed upon the service are as follows:

Any person may make application to any board of local inspectors for a certificate of service as able seaman, and upon proof being made to said board by affidavit and examination, under rules approved by the Secretary of Commerce showing the nationality and age of the applicant and the vessel or vessels on which he has had service and that he is entitled to such certificate under the provisions of this section, the board

of local inspectors shall issue to said applicant a certificate of service, which shall be retained by him and be accepted as *prima facie* evidence of his rating as an able seaman.

In the regulations contained in the above act regarding life-saving appliances, a specified number of certificated life-boat men are required for each life-boat or raft, according to the number of passengers such boats may carry. By "certificated life-boat man" is meant any member of the crew who holds a certificate of efficiency issued under the authority of the Secretary of Commerce who is directed by the act to provide for the issue of such certificates.

In order to obtain the special life-boat man's certificate the applicant must prove to the satisfaction of an officer designated by the Secretary of Commerce that he has been trained in all the operations connected with launching of life-boats and the use of oars; that he is acquainted with the practical handling of the boats themselves; and, further, that he is capable of understanding and answering the orders relative to life-boat service.

In the work of certification of life-boat men the Steamboat-Inspection Service is assisted by officers of the different marine services, viz., the Coast and Geodetic Survey, the Bureau of Lighthouses, the Coast Guard, the Bureau of Fisheries, and the Navy Department.

Prior to the passage of this act, there were no statutory or regulatory requirements as to ability or experience of the crew other than the requirement that a vessel should be properly manned. There was no age requirement, and none as to physical condition, ability, and experience of seamen in any part of the crew. Thus the provision was an important forward step in the direction of improved safety conditions on board ship.

Determination of Ship's Complement and Accommodations Therefor. Another important provision in the act of 1871, establishing a central office for the service and extending the scope of its activities, was that requiring all steam-

vessels carrying passengers to have in their service a full complement of licensed officers and full crew, sufficient at all times to manage the vessel. This law was amended by the act of March 3, 1913 (37 Stat. L., 732), which authorized the local inspectors to determine the necessary complement of officers and crew for the navigation of all vessels of the United States subject to the inspection laws and to enter the same in the certificates of inspection of such vessels; such entry being subject to appeal to the supervising inspector of the district and from him to the Supervising Inspector-General. The law was further amended by the "Seamen's Act" of 1915, which, in addition to requiring the examination and certification of seamen, and life-boat men, prescribes the percentage of the crew who must be of a rating not less than able seamen. Section 4463 of the Revised Statutes, as thus amended, provides as follows:

Any vessel of the United States subject to the provisions of this title [Regulation of Steam-Vessels] or to the inspection laws of the United States shall not be navigated unless she shall have in her service and on board such complement of licensed officers and crew including certificated life-boat men, separately stated, as may, in the judgment of the local inspectors who inspect the vessel, be necessary for her safe navigation. The local inspectors shall make in the certificate of inspection of the vessel an entry of such complement of officers and crew including certificated life-boat men, separately stated, which may be changed from time to time by endorsement on such certificate by local inspectors by reason of change of conditions of employment. Such entry or indorsement shall be subject to a right of appeal, under regulations to be made by the Secretary of Commerce, to the supervising inspector, and from him to the Supervising Inspector-General, who shall have the power to revise, set aside, or affirm the said determination of the local inspectors.

Further statutory provisions require that the board of local inspectors shall make an entry in the certificate of inspection of every ocean and coastwise seagoing merchant vessel of the

United States propelled by machinery, and of every oceangoing vessel carrying passengers, regarding the minimum number of licensed deck officers required for safe navigation, according to a scale prescribed by law.¹²

The inspection laws of the United States and the statutory provisions regulating the transportation of passengers, as has been noted in the preceding chapter, were first directed toward the safety and comfort of passengers only, but the present laws also require suitable accommodations for the officers and crews of vessels. In general it is the duty of local inspectors to satisfy themselves that every vessel submitted to their inspection "has suitable accommodations for passengers and the crew," before granting a certificate of inspection. By an act approved March 3, 1897 (29 Stat. L., 697), seagoing vessels, except fishing vessels, yachts, pilot boats, and all vessels under 200 tons registry, were required to provide suitable quarters for their crews. The Seamen's Act of 1915 amends the act of 1897 by prescribing accommodations such as sleeping quarters, toilets, washing places, and hospital facilities to be furnished for the crews on all merchant vessels of the United States. Steamboats plying upon the Mississippi River or its tributaries are required to furnish an appropriate place for the crew, which must conform as far as practicable to the general requirements for all vessels, by providing sleeping room in the engine room properly protected from the elements, under the direction and approval of the Supervising Inspector-General.

Investigations of Marine Casualties and Violations of Inspection Laws. The legal responsibility of officers licensed by the Steamboat-Inspection Service for loss of life occasioned by their misconduct, negligence, or inattention to duty was first recognized in the act of 1838. This responsibility is thus expressed in the existing law:

¹² This section does not apply, according to the terms of the act of 1913, to fishing or whaling vessels, yachts or motor-boats, as defined in the motor-boat act of 1910.

Every captain, engineer, pilot, or other person employed on any steamboat or vessel, by whose misconduct, negligence or inattention to his duties on such vessel the life of any person is destroyed, and every owner, charterer, inspector or other public officer, through whose fraud, neglect, connivance, misconduct, or violation of law the life of any person is destroyed, shall be fined not more than ten thousand dollars, or imprisoned not more than ten years, or both.

The task of placing responsibility for marine accidents through the investigation of alleged acts of incompetency or misconduct committed by officers while acting under the authority of licenses issued by the Steamboat-Inspection Service, is imposed by law upon the local boards of inspectors, who are empowered to summon before them any witnesses within their respective districts and to compel their attendance by a process similar to that used in the United States district courts. If, after conducting such an investigation, the board shall be satisfied that such licensed officer is incompetent, or has been guilty of misbehavior, negligence, or unskillfulness, or has endangered life or wilfully violated any provision of the steamboat-inspection laws, they must immediately suspend or revoke his license. The disbursing clerk of the Department of Commerce is authorized to pay the fees of witnesses summoned for such investigation. The law further provides:

That if any licensed officer shall, to the hindrance of commerce, wrongfully or unreasonably refuse to perform his official duties after having signed articles or while employed on any vessel as authorized by the terms of his certificate of license, or if any pilot or engineer shall refuse to admit into the pilot house or engine room any person whom the master or owner of the vessel may desire to place there for the purpose of learning the profession, his license shall be revoked or suspended upon the same proceedings as are provided in other cases of revocation or suspension of such license.

Under the provisions of the act of June 10, 1918 (40 Stat. L., 602), already quoted in detail, the decisions of the local

inspectors are subject to review by the supervising inspector and the Supervising Inspector-General.

This power granted to the local boards of inspectors to investigate acts of misconduct and incompetency committed by licensed officers constitutes the sole legal basis or authority for an important activity of the Steamboat-Inspection Service, namely, the investigation of marine casualties. Section 15, Rule V of the General Rules and Regulations prescribed by the board of supervising inspectors provides as follows:

The licensed officer in command of any vessel subject to the inspection of the Steamboat-Inspection Service shall report in writing and in person to the board of local inspectors nearest the port of first arrival any accident to said vessel involving loss of life, or damage to property to an approximate amount exceeding \$100, and shall also report in the same manner any casualty or loss of life from whatever cause of any person on board such vessel. If the accident happens upon the high seas or without the jurisdiction of inland waters the board to whom the report is first made shall make the investigation, but if the accident occurs within the jurisdiction of inland waters, the report shall be transmitted to the board within whose jurisdiction the accident occurred, which board shall make the investigation, except in cases where, in the judgment of the Supervising Inspector-General, better results may be obtained by another board conducting the investigation, in which case the Supervising Inspector-General is authorized to direct such investigation by another board: *Provided*, That when from distance it may be inconvenient to report in person it may be done in writing only, and the report sworn to before any person authorized to administer oaths.

The language of this rule presupposes some statutory authority in the local inspectors to investigate accidents, which in fact does not exist. Notwithstanding the absence of such express authority, however, under the practice of the service, one of the most important duties that devolves upon the local inspectors is the investigation of accidents on or about vessels subject to the service, including disasters involving great loss of life. This exercise of authority in excess of that granted

by law is no doubt due to the fact that the greater number of marine casualties relate to the misconduct or negligence of some officer, and that the investigation of the acts of officers also involves the consideration of many attending circumstances. Thus the Secretary of Commerce, in his annual report for 1916, pointed out that, since there is at present no general authority of law for investigating marine disasters, if there were an accident in which all the licensed officers were killed, the Department would have no lawful authority to investigate the cause of the disaster. He therefore recommended that authority be given to the Steamboat-Inspection Service to investigate marine disasters occurring on any vessels under its supervision.

Special committees or boards have been appointed at various times to investigate serious accidents to vessels involving large loss of life, but again such bodies have had no legal standing, no lawful power to subpoena and examine witnesses, nor to perform other essential acts necessary to conduct a thorough examination. In the report of the Commissioner of Navigation and the Supervising Inspector-General to the Secretary of Commerce on October 16, 1915, after these officers had investigated the circumstances of the collision between the steamships *Monroe* and *Nantucket* on January 30, 1914, it was recommended that a tribunal should be lawfully established for investigations into marine casualties involving serious loss of life similar to the courts of inquiry provided for in the British Merchant Shipping Act and the Canadian Merchant Shipping Act. The report pointed to the need for such a tribunal, as shown after the burning of the steamer *General Slocum* in 1904 and the capsizing of the steamer *Eastland* in 1915. Nothing has come from this recommendation, however, and the boards of local inspectors still constitute the only legal authority to investigate marine casualties, and their work, as has been already pointed out, is limited to placing the responsibility upon the officers of the vessel if such responsibility exists.

It should be kept in mind throughout the entire discussion of the activities of the Steamboat-Inspection Service, that only in a partial degree does the service perform the duties of a police character in the enforcement of the navigation laws, including those relating to the inspection of vessels. Its activities are almost purely those of working out in detail the conditions that must be met by vessels as regards their construction and equipment, of inspecting vessels for the purpose of seeing that those conditions are met, and certifying to conditions found, and of examining persons desiring to serve as pilots, officers, and seamen of vessels and issuing licenses to those found qualified to discharge the duties of such positions. When it has performed these duties, and has certified to the results, its responsibility may be said to be practically at an end. Responsibility for *enforcing* the law, that is, of seeing that vessels are not navigated without complying with all requirements regarding matters covered by the steamboat-inspection laws and other laws pertaining to navigation, rests largely upon officers of the Customs Service and the Coast Guard.

In large part the navigation laws fail to specify the particular service that shall be charged with the enforcement of their provisions. The older laws in general imposed this obligation upon the Secretary of the Treasury, to be exercised through the collectors of customs and other officers of the government. This duty was transferred to the Secretary of Commerce and Labor and later to the Secretary of Commerce. Later acts, such, for example, as the wireless-telegraph and the Motor-Boat acts of 1910 (36 Stat. L., 629; 36 Stat. L., 462) follow the same practice. Thus both of these two acts provide that:

The Secretary of Commerce and Labor shall make such regulations as may be necessary to secure the proper execution of this act by collectors of customs and other officers of the government.

The Secretary of Commerce and Labor delegated the work of enforcing these two acts to the Commissioner of Navigation. General responsibility for the administration and enforcement of the navigation and shipping laws is placed upon the Commissioner of Navigation. The law thus provides:

The Commissioner of Navigation, under the direction of the Secretary of Commerce, shall have general superintendence of the commercial marine and merchant seamen of the United States, so far as vessels and seamen are not, under existing laws, subject to the supervision of any other officer of the government.

The activities of the Bureau of Navigation in performing this function of administration and enforcement are discussed more fully in the monograph on that particular service. The work of the Coast Guard in the enforcement of these laws, is purely that of a police character. Its vessels have the authority and are charged with the duty of stopping and boarding vessels for the purpose of determining whether the provisions of law and the rules and regulations laid down by other services of the government are complied with, and of taking such steps as may be necessary to secure such compliance. The work of this service was supplemented by a provision in the legislative, executive, and judicial appropriation act for 1912, approved March 4, 1911 (36 Stat. L., 1170), as follows:

Enforcement of Navigation Laws: To enable the Secretary of Commerce and Labor to provide and operate such motor-boats and employ thereon such persons as may be necessary for the enforcement, under his direction by customs officers of the laws relating to the navigation and inspection of vessels, boarding of vessels, and counting of passengers on excursion boats, fifteen thousand dollars.

As a matter of final analysis, it may be said that customs officers constitute the basic service for the administration and enforcement of the navigation laws, and that the field services

of the Bureau of Navigation, the Steamboat-Inspection Service and the Coast Guard, and the motor-boats employed under the direction of the Secretary of Commerce, are merely supplemental services for performing certain special duties or work of a particular character at particular points. Notwithstanding the fact that these officers are officers of another department they nevertheless constitute the most important field service made use of by the Department of Commerce in performing its function of administering the navigation and shipping laws. With respect to the particular portion of those laws dealing with the inspection and regulation of steam-vessels, the present law provides that all collectors, or other chief officers of the customs, as well as all the inspectors within the several districts, shall enforce the provisions of the above laws against all steamers arriving and departing. The law further provides that:

Every collector or other chief officer of the customs, or inspector, who negligently or intentionally omits any duty under the preceding section [as summarized above] shall be liable to removal from office, and to a penalty of one hundred dollars for each offense, to be sued for in any action of debt.

A register, enrollment, or license shall not be granted, or other papers be issued by any collector or other chief officer of customs to any vessel subject by law to inspection under this title [Regulation of Steam-Vessels] until all the provisions of this title applicable to such vessel have been fully complied with and until the copy of the certificate of inspection required by this title for such vessel has been filed with said collector or other chief officer of customs.

Enforcement by inspectors of the Steamboat-Inspection Service seldom goes beyond the act of suspension or revocation of the certificates of inspection of vessels subject to their jurisdiction, or the licenses of marine officers. Supervising inspectors are authorized by law, after having ascertained to their satisfaction that any licensed officer or owner of any steam-vessel has failed to perform his duties, to report the

same to the local inspectors, and, if need be, "cause the negligent or offending party to be prosecuted." The indefiniteness of this grant of authority, however, leads one to question for what, and by whom, the offending party is to be prosecuted. Further, local inspectors are charged by law with the duty, in case of the operation of a vessel after the suspension or revocation of its certificate of inspection, to apply to the Federal District Court for an order to cause such vessel to be seized summarily and held without release under bond. In the case of the violation of a statute which provides a penalty of fine or imprisonment, in addition to the suspension or revocation of the certificate of inspection or license, the inspectors generally turn the guilty parties over to the customs officers for criminal prosecution.

The apparent division of responsibility in the enforcement of the navigation and inspection laws, has been the subject of severe criticism, and urgent recommendations have been made looking toward the concentration of this work under one bureau or service. It is sufficient for the purposes of this descriptive study, however, merely to call attention to such division.

Establishment of Regulations to Prevent Collisions. One of the important duties assigned to the board of supervising inspectors by the act of 1871 was the establishment of such rules and regulations from time to time, as they might deem necessary, to be observed by vessels navigating the waters of the United States in passing each other. Such regulations are issued by the board under the title "Pilot Rules," two copies of which, duly signed by the members of the board, are furnished to each vessel, and one copy must at all times be kept posted up in a conspicuous place on such vessels. For the purpose of administering the pilot rules, the waters of the United States are divided into three parts, and separate rules are made for each. These three divisions are: (1) Atlantic and Pacific coast inland waters, (2) the Great Lakes and

their connecting and tributary waters as far east as Montreal, (3) rivers whose waters flow into the Gulf of Mexico, and their tributaries, and the Red River of the North.

Preceding the provision made in the act of 1871, as summarized above, an act approved April 29, 1864 (13 Stat. L., 58), prescribed rules "for preventing collisions on the water, to be followed in the navigation of vessels of the Navy and of the mercantile marine of the United States." This act was modified by a statute, approved March 3, 1885 (23 Stat. L., 438), which adopted the "Revised International Rules and Regulations for Preventing Collisions at Sea," to be observed in the navigation of all public and private vessels of the United States upon the high seas and in the coast waters of the United States. The act of 1885 was repealed and the act of 1864 limited in its application by an act approved August 19, 1890 (26 Stat. L., 320), which prescribed regulations for preventing collisions at sea to be followed "by all public and private vessels of the United States upon the high seas and in all waters connected therewith, navigable by seagoing vessels." The enforcement of this latter statute was postponed by act of February 23, 1895 (28 Stat. L., 680), and it did not go into effect until July 1, 1897, in accordance with a proclamation issued by the President on December 31, 1896 (29 Stat. L., 885). The rules established by the act of 1864 are now limited in their application to "rivers whose waters flow into the Gulf of Mexico and their tributaries and to the Red River of the North," except in the case of vessels propelled by gas, fluid, naphtha, or electric motors, which, by the act of January 18, 1897 (29 Stat. L., 489), are subject to so much of the provisions contained in the above act "relating to lights, fog signals, steering and sailing rules, as the board of supervising inspectors shall, by their regulations, deem applicable and practicable for their safe navigation."

Special provisions as to lights and signals on fishing vessels and steam pilot vessels, serving to modify the act of 1890, are contained in the acts approved May 28, 1894 (28 Stat. L., 82),

June 10, 1896 (29 Stat. L., 381), February 19, 1900 (31 Stat. L., 30), and January 19, 1907 (34 Stat. L., 850). The Motor-Boat Act of 1910 also prescribes certain specific rules as to lights, whistles, fog horns, and bells to be observed in the operation of motor-boats to prevent collisions. The most recent legislation on this subject is the act approved May 25, 1914 (38 Stat. L., 381), which authorizes the supervising inspectors and the Supervising Inspector-General to establish rules concerning the lights to be carried by ferry-boats, and by barges and canal-boats when in tow of steam-vessels, and also concerning warning signals on vessels working on wrecks, or engaged in dredging or other submarine work.

The authority given to the board of supervising inspectors by the act of 1871 to establish regulations to be observed by vessels in passing each other has been limited by subsequent enactments, so that the full and complete authority of the board now extends only to vessels navigating the "rivers whose waters flow into the Gulf of Mexico and their tributaries, and the Red River of the North." Regulations applicable to vessels navigating the "Great Lakes, and their connecting and tributary waters as far east as Montreal" are specifically prescribed in an act of Congress approved February 8, 1895 (28 Stat. L., 645), but the board of supervising inspectors is authorized to establish additional regulations which they deem necessary. An act approved June 7, 1897 (30 Stat. L., 96), also prescribes specific rules to be observed by vessels navigating the "inland waters of the Atlantic and Pacific coasts," although the board of supervising inspectors is empowered to establish additional rules not inconsistent with the provisions of the act.¹³

¹³ The act of August 19, 1890, noted above, provides that the rules laid down in that act for vessels upon the high seas shall not "interfere with the operation of a special rule made by local authority relative to the navigation of any harbor, river or inland water." The act of 1897, therefore, declares its provisions to be special rules duly made by local authority. Its general purpose is to assimilate, as far as practicable, the local with the international rules. The division between the high seas and "any harbor, river, or in-

Determination of Passenger Allowance. The first legislation enacted by Congress looking toward a restriction of the number of passengers vessels should be permitted to carry was the act approved February 22, 1847 (9 Stat. L., 127), which established a maximum number of passengers, based on the tonnage of vessels. This act was superseded by an act approved March 3, 1855 (10 Stat. L., 715), as amended by act of July 4, 1864 (13 Stat. L., 390). The basic section of the present law giving the Steamboat-Inspection Service supervision over the transportation of passengers dates back to the act of 1871, and provides as follows:

The inspectors shall state in every certificate of inspection granted to steamers carrying passengers, other than ferry-boats, the number of passengers of each class that any such steamer has accommodations for, and can carry with prudence and safety.

It shall not be lawful to take on board of any steamer a greater number of passengers than is stated in the certificate of inspection; and for every violation of this provision the master or owner shall be liable, to any person suing for the same, to forfeit the amount of passage-money and ten dollars for each passenger beyond the number allowed.¹⁴

Under authority of this provision, local inspectors have exclusive jurisdiction in the matter of fixing the number of passengers that may be carried on board steamers. Such a system, designed to meet varying local conditions and different types of vessels, however, does not lend itself to a uniform administration of law. The judgment of all inspectors is not the same; one inspector may err in permitting a steamer to

"land water" is fixed by the Secretary of Commerce under authority of an act approved February 19, 1895 (28 Stat. L., 672).

¹⁴ By an act of July 9, 1886 (24 Stat. L., 129), as amended by an act of February 23, 1901 (31 Stat. L., 800), supervising inspectors are authorized to issue licenses to tow-boats, oyster steamers, and fishing steamers on the Great Lakes and inland waters, to carry such persons on board without hire, in addition to their crews, as are necessary to carry on their legitimate business.

carry more passengers than its capacity justifies, whereas another may err in not permitting a steamer to carry as many passengers as might be safely and prudently allowed. If it were practicable to have a uniform and general rule by which passenger allowance could be estimated, it would be most desirable, but under the varying conditions it seems practically impossible to put such a rule into effect. The bureau has repeatedly warned local inspectors in the past that the sole responsibility is theirs, and that they would be held responsible in the event of disaster. There is one factor, however, which tends to control the allowance of passengers, and that is the present requirement in regard to life-boat equipment; for where steamers are boated according to the number of passengers carried, they are restricted in their passenger allowance by the extent of their equipment, and consequently cannot carry a larger number of passengers than is justified by their life-boat capacity.

The board of inquiry appointed by the Secretary of Commerce to investigate the sinking of the steamer *Eastland* in 1915, recommended more strict supervision over the work of local inspectors in determining the passenger allowance of steam-vessels. Congress acted upon this recommendation by passing an act, approved February 14, 1917 (39 Stat. L., 918), which amends the section of the act of 1871, above quoted, by adding the following:

They [the local inspectors] shall report their action to the supervising inspector of the district, who may at any time order the number of such passengers decreased, giving his reasons therefor in writing, and thereupon the board of local inspectors shall change the certificate of inspection of such vessel to conform with the decision of the supervising inspector. Whenever the allowance of passengers shall be increased by any board of local inspectors, such increase shall be reported to the supervising inspector of the district, together with the reasons therefor, and such increase shall not become effective until the same has been approved in writing by the supervising inspector.

The act of 1871, as amended by an act approved May 28, 1908 (35 Stat. L., 424), charges the master of every passenger steamer with the duty of keeping a correct count of all the passengers received and delivered from day to day, which count must be open at all times to the inspection of the local inspectors and officers of the customs; and the aggregate number of passengers must be furnished to inspectors as often as called for. A correct list of passengers received and delivered from day to day, instead of a direct count, is required of the masters of seagoing steamers in the coastwise trade and by the masters of passenger steamers navigating the Great Lakes on routes exceeding three hundred miles. Failure on the part of the master of any passenger steamer, through negligence or design, to keep such a count or list of passengers, makes him liable to a fine of one hundred dollars. In addition to this requirement, inspectors and officers of customs within the several districts, under authority of the act of 1871, which charges those officers with the duty of enforcing the provisions of the inspection laws against all steamers arriving and departing, have for many years counted the passengers boarding vessels under their jurisdiction, especially excursion steamers. Because of this division of responsibility, however, made necessary by the inadequate personnel of the Steamboat-Inspection Service, it is possible for steamers upon which passengers ought to be counted to escape observation. The Secretary of Commerce and the Supervising Inspector-General have often emphasized the advantages in the way of efficient operation and supervision to be gained by increasing the personnel of the service sufficiently to justify imposing all of this work upon the local inspectors, but this has not been done. The bureau instituted a system in 1913 whereby the counts of passengers made by inspectors and customs officers are reported to the central office. Such reports are carefully examined, and whenever it appears that there is any overloading an immediate investigation is made.

In the case of excursion steamers, the act of 1871 authorized

the local inspectors to issue special permits in writing, for each occasion, in which should be stated the additional number of passengers that could be carried with safety. The local inspectors were also empowered to limit, in their discretion, the route and distance for such excursions. The only amendment or modification made in regard to the issue of such permits by local inspectors since 1871 is that contained in the act of February 14, 1917 (39 Stat. L., 918), which provides that the issuance of such special permits shall be reported by the board of local inspectors to the supervising inspector of the district, and shall not be effective until approved by the supervising inspector.

Attention is called to the fact that under the existing laws, vessels other than steamers are not subject to restriction in the number of passengers. Recommendations looking toward an amendment to the present laws extending the authority of inspectors in determining passenger allowance to include all private vessels of the United States have been made from time to time by the Supervising Inspector-General, but no action has been taken to remedy this condition, which has become dangerous due to the rapid increase in the use of motor-boats.

Inspection of Passenger Accomodations. As previously noted, the local inspectors must satisfy themselves, before granting to the owner or master of a vessel a certificate of inspection, that such vessel has "suitable accommodations for passengers and the crew." The first legislation looking toward the comfort and convenience of passengers on steam-vessels, as well as their safety, was the act of March 3, 1855 (10 Stat. L., 715) which charged the owners of vessels with the duty of providing suitable sleeping quarters, ventilation, food and water, and other essentials for the comfort of passengers.

"The Passenger Act, 1882" (22 Stat. L., 186), as amended by the acts of February 9, 1905 (33 Stat. L., 711) and

December 19, 1908 (35 Stat. L., 583), regulates in detail the conditions that must be met by vessels entering port with steerage passengers (defined in the act as "all passengers except cabin passengers") from a foreign country. These conditions cover such matters as sleeping accommodations, ventilation, toilet facilities, food, hospital accommodations, discipline, and cleanliness. In respect to the enforcement of these provisions the law provides :

That the collector of customs of the collection district within which, or the surveyor of the port at which, any such steamship or other vessel arrives, shall direct an inspector or other officer of the customs to make an examination of the vessel, and to admeasure the compartments or spaces occupied by the emigrant passengers, or passengers other than cabin passengers, during the voyage; and such measurement shall be made in the manner provided by law for admeasuring vessels for tonnage; and to compare the number of such passengers found on board with the list of such passengers furnished by the master to the customs officer; and the said inspector or other officer shall make a report to the aforesaid collector or surveyor, stating the port of departure, the time of sailing, the length of the voyage, the ventilation, the number of such passengers on board the vessel and their native country, respectively; the cubic quantity of each compartment or space, and the number of berths and passengers in each space, the kind and quality of the food furnished to such passengers on the voyage; the number of deaths, and the age and sex of those who died during the voyage, and of what disease; and in case there was any unusual sickness or mortality during the voyage, to report whether the same was caused by any neglect or violation of the provisions of this act, or by the want of proper care against disease by the masters or owners of the vessel; and the said reports shall be forwarded to the Secretary of Commerce at such times and in such manner as he shall direct.

While the duty of enforcing this act is expressly imposed upon the customs officers, yet the inspectors of the Steamboat-Inspection Service may quite properly enforce its provisions through their general authority to see that all vessels subject

to their inspection have *suitable* accommodations for their passengers.

Regulation of the Transportation of Dangerous Articles.

One of the most important activities of the Steamboat-Inspection Service is the issuance of licenses permitting passenger vessels, after meeting certain requirements, to carry dangerous and easily combustible or inflammable articles—an activity first authorized by the act of 1852. The inspection and navigation laws at present in force contain a large number of provisions having for their purpose the regulation of the transportation of such articles on board steam-vessels carrying passengers. Following the act of 1852, the next important legislation concerning the transportation of explosives was an act approved July 3, 1866 (14 Stat. L., 81), which is in force at the present time. By the terms of this act, it is made unlawful to transport, carry or convey, ship, deliver on board, or cause to be delivered on board, nitro-glycerine upon or in any vessel or vehicle used or employed in transporting passengers by land or water between a place in any foreign country, and a place within the limits of any State, territory, or district of the United States, and a place in any other State, territory, or district thereof. Rules to be observed in packing and marking nitro-glycerine for shipment on vessels not carrying passengers are also prescribed by this act. The delivery of shipments of inflammable materials on vessels, other than those used in rivers or inland navigation, must be accompanied by a note in writing, expressing the nature and character of such merchandise, to the master, mate, officer, or person in charge of the loading of the vessel. Any person violating the provisions of this act is made liable to a penalty of one thousand dollars.

The act of 1871 also contained important provisions regulating the transportation of dangerous articles on passenger vessels which are now in force. The rules prescribed for the transportation of gunpowder are as follows:

Upon the application of any master or owner of any steam vessel employed in the carriage of passengers, for a license to carry gunpowder, the local inspectors shall examine such vessel, and if they find that she is provided with a chest or safe composed of metal, or entirely lined and sheathed therewith, or if the vessel has one or more compartments thoroughly lined and sheathed with metal, at a secure distance from any fire, they may grant a certificate to that effect, authorizing such vessel to carry as freight within such chest, safes, or compartments the articles of gunpowder, which certificate shall be kept conspicuously posted on board such vessel.

The local inspectors are required to keep a record of such certificates or permits. Whenever any passenger steam-vessel receives or carries any gunpowder on board, not having a certificate authorizing the same, placed and kept as required, or shall carry any gunpowder at a place or in a manner not authorized by such certificate, such steam-vessel is liable to a penalty of \$100 for each offense. Shipments of gunpowder as well as other explosive or easily combustible articles, must be securely packed and plainly marked, and failure to meet these requirements is punishable by a fine not exceeding two thousand dollars, or imprisonment not exceeding eighteen months, or both.

Additional provisions were included in the act of 1871 enlarging the scope of this activity of the Steamboat-Inspection Service, such as the following:

No loose hay, loose cotton, or loose hemp, camphene, nitroglycerine, naphtha, benzine, benzole, coal oil, crude or refined petroleum, or other like explosive burning fluids, or like dangerous articles, shall be carried as freight or used as stores on any steamer carrying passengers; nor shall baled cotton or hemp be carried on such steamers unless the bales are compactly pressed and thoroughly covered and secured in such manner as shall be prescribed by the regulations established by the board of supervising inspectors with the approval of the Secretary of the Treasury [now the Secretary of Commerce]; nor shall gunpowder be carried on any such vessel except under special license; nor shall oil of vitriol, nitric or other

chemical acids be carried on such steamers except on the decks or guards thereof or in such other safe part of the vessel as shall be prescribed by the inspectors.

The manner in which such dangerous or easily combustible materials should be packed for shipment was prescribed and failure to pack articles in the mode thus prescribed or delivery of thereof to any steam-vessel, unless so packed and marked, was made punishable by a fine not exceeding two thousand dollars, or imprisonment not exceeding eighteen months, or both, and the said articles were made subject to seizure and forfeiture. Regulations were also imposed in the act of 1871, as amended by the act of February 27, 1877 (19 Stat. L., 252), concerning the carriage of refined petroleum, oil or spirits of turpentine, and friction matches, on passenger steamers.

The act of 1871 gave authority to the Secretary of the Treasury (later transferred to the Secretary of Commerce) to grant permission to the owner of any steam-vessel, "to use any invention or process for the utilization of petroleum or other mineral oils or substances in the production of motive power," and the Secretary was empowered to make and enforce regulations concerning the application and use thereof for such purpose. No such permit was to be granted, however, except upon the certificate of the supervising inspector for the district where such vessel was registered, and other satisfactory proof that the use of the same was safe and efficient. Upon such proof, and the approval of such certificate by the said Secretary, a special license for the use of such process or invention should issue under the seal of the Treasury Department (now under the seal of the Department of Commerce). The above provision was modified by act of October 18, 1888 (25 Stat. L., 564), which authorized the Secretary to permit the use of petroleum on steamers not carrying passengers, without the certificate of the supervising inspector, subject to such conditions and safeguards as the Secretary in his judgment should provide. Violation of such conditions

imposed by the Secretary was made punishable by a fine of five hundred dollars. Still another modification was made in the regulations by the act of July 17, 1914 (38 Stat. L., 511), which provided for the transportation of excess crude petroleum, of a flashpoint not less than 150 degrees Fahrenheit, in the fuel tanks of steamers and its discharge at terminal ports when no passengers were on board.

Modifications in the regulations dealing with the transportation of crude petroleum and the products thereof were found to be necessary because of the ever increasing use of gasoline motors and engines. By the act of February 20, 1901 (31 Stat. L., 799), the transportation by steam-vessels of gasoline or any of the products of petroleum, when carried by motor vehicles (automobiles) using the same as a source of motive power, was permitted under certain restrictions. Further modifications have been made by the acts of May 28, 1906 (34 Stat. L., 204), January 24, 1913 (37 Stat. L., 650), and October 22, 1914 (38 Stat. L., 765), to permit the transportation, under rules prescribed by the board of supervising inspectors, of gasoline and other products of petroleum on steam-vessels for use as a source of motive power for the motor-boats, launches, and motor-driven life-boats of such vessels, or for the operation of engines to supply an auxiliary lighting and wireless system independent of the vessel's main power plant. The most recent legislation on this subject is the act approved March 29, 1918 (40 Stat. L., 499), which provides that kerosene and lubricating oils made from refined products or petroleum which will stand a fire test of not less than three hundred degrees Fahrenheit may be used as stores on board steamers carrying passengers, under such regulations as shall be prescribed by the board of supervising inspectors with the approval of the Secretary of Commerce.

In a very limited way do the foregoing provisions apply to the transportation of dangerous articles by freight vessels. An act approved May 30, 1908 (35 Stat. L., 554) made it unlawful to transport, carry, or convey liquid nitro-glycerine,

fulminate in bulk in a dry condition, or other like explosive on any vessel engaged in interstate or foreign commerce, and also provided that the contents of packages containing explosives or other dangerous articles when presented to such vessels for shipment must be plainly marked on the outside thereof. Recommendations have been made looking toward an extension of the control and jurisdiction of the Steamboat-Inspection Service over the transportation of dangerous articles on steamers that do not carry passengers, of which the following, contained in the annual report of the Supervising Inspector-General for 1914, is typical:

While from the commercial standpoint it may be said that there are no passengers on these freight vessels it is nevertheless a fact that the Government owes a duty of protection to the crews on these vessels. It is also none the less a fact that by the carrying of dangerous articles in a dangerous manner on steamers that are not carrying passengers, the lives of those on passenger-carrying steamers may be jeopardized. The authority of the Steamboat-Inspection Service should, therefore, be so extended as to give jurisdiction over the transportation of dangerous articles on non-passenger steamers.

This and subsequent recommendations however, have failed to elicit the desired action on the part of Congress. This service is called upon to discharge duties falling in all three of the great branches or divisions of government. In the exercise of its large powers to draft rules and regulations having the force of law, it is acting in a legislative, or quasi-legislative, capacity. In the discharge of its duties, to inquire into the conduct of pilots and officers of vessels and to impose penalties in the way of the suspension or revocation of licenses, it is acting in much the same way as a judicial body. In the performance of its duties of inspecting vessels and boiler plates it is acting as an administrative body. The effect which this combination of governmental powers, has had upon the organization of the service will be noted in the following chapter.

CHAPTER III

ORGANIZATION

The Steamboat-Inspection Service is organized in three main divisions: (1) General administration, (2) Boiler plate inspection, (3) Inspection service.

General Administration. The central office of the Steamboat-Inspection Service was not organized until the act of 1871, which created the office of Supervising Inspector-General. The force employed in the work of general administration is relatively small, owing partly to the fact that all of its work in connection with appointments, accounting and disbursing, printing and distribution of publications, purchase of supplies, and provision and care of quarters is taken care of by divisions of the Department of Commerce having in charge these matters for all the bureaus of the department, and partly to the fact that supervision over operations in the field is to a large extent exercised by the supervising inspectors, who constitute a part of the field inspection service.

The Supervising Inspector-General is at the head of this division, and of the service as a whole. His powers and duties, as authorized by law, are as follows:

There shall be a supervising inspector-general, who shall be appointed from time to time by the President, by and with the advice and consent of the Senate, and who shall be selected with reference to his fitness and ability to systematize and carry into effect all the provisions of law relating to the steamboat-inspection service, and who shall be entitled to a salary of five thousand dollars a year, and his actual necessary traveling expenses while traveling on official business assigned to him by competent authority, together with his actual and

reasonable expenses for transportation of instruments, which shall be certified and sworn to under such instructions as shall be given by the Secretary of Commerce.

The supervising inspector-general shall, under the direction of the Secretary of Commerce, superintend the administration of the steamboat-inspection laws, preside at the meetings of the board of supervising inspectors, receive all reports of inspectors, receive and examine all accounts of inspectors, report fully at stated periods to the Secretary of Commerce upon all matters pertaining to his official duties, and produce a correct and uniform administration of the inspection laws, rules and regulations.¹

In addition to his general powers and duties as thus prescribed, the Supervising Inspector-General is authorized to hear appeals from the decisions of the supervising inspectors, and his judgment, when approved by the Secretary of Commerce, is final. The regulations in the "Seamen's Act" of 1915 concerning life-saving appliances authorize the Supervising Inspector-General to designate an officer before whom tests may be made as to the time necessary for efficiently launching lifeboats. He is also authorized by an act approved May 28, 1908 (35 Stat. L., 424), to convene with the Commissioner of Lighthouses and the Commissioner of Navigation, acting as a board, at such times as the Secretary of Commerce shall prescribe, "to prepare regulations limiting the length of hawsers between towing vessels and seagoing barges in tow and the length of such tows within any of the inland waters of the United States. . . ."

In short, the Supervising Inspector-General is responsible for the general effectiveness, usefulness, and capacity of the service, and for the intelligent direction and management of its affairs.

By an act approved July 2, 1918 (40 Stat. L., 739), the Secretary of Commerce was given authority to appoint a

¹ Act of February 28, 1871 (16 Stat. L., 440), as amended by act of April 9, 1906 (34 Stat. L., 106), by act of October 22, 1913 (38 Stat. L., 208), and by annual appropriation acts.

Deputy Supervising Inspector-General "who shall be the chief clerk of the bureau and in the absence of the Supervising Inspector-General have power to act in his stead, and who shall be entitled to a salary of \$3000 per year. Prior to the passage of this act, the appropriations for the central office of the service, beginning with the act of July 7, 1884 (23 Stat. L., 159), had provided for a chief clerk in the office of the Supervising Inspector-General, who was given charge of the clerical work of the central office, and general supervision of the clerical work in the service at large. In the absence of the Supervising Inspector-General he became the acting Supervising Inspector-General in charge of the administrative direction of the service. Aside from the direction of the clerical work, he was also assigned correspondence of the central office, and legal work incident to the administration of the steamboat inspection laws. The Deputy Supervising Inspector-General, as chief clerk of the bureau, continues to perform these duties.

Clerical and messenger service for the central office is provided for in the annual appropriation acts. The clerks in the central office are engaged, chiefly, in handling the daily correspondence of the service, in mailing publications of the service, and in the examination and filing of the card records forwarded by the local inspectors. With reference to the latter, it should be noted that a card index system was installed throughout the service in 1910, whereby inspectors are now required, when filing a certificate of inspection or officer's license, to forward to the central office immediately, a card showing in detail the results of the inspection or examination. Thus information relative to the inspection of vessels and the licensing of officers is readily accessible. In the same year the mailing system of the service was entirely reorganized. It had been customary to mail in bulk most of the literature for which the service was responsible to the local inspectors, who were required to distribute it to all persons concerned. In an effort to distribute these important documents

ments more expeditiously, and to release the local inspectors from this additional burden, the responsibility for mailing such publications as the General Rules and Regulations, the Annual Report, the List of Licensed Officers, and the Pilot's Rules, was taken over by the central office. Lists containing the names of all persons or corporations needing such documents are now maintained, and the literature is mailed direct.

Marine Boiler Plate Inspection. It has been pointed out, in the description of the activities of the Steamboat-Inspection Service that the law requires that no plates shall be used in the construction of marine boilers that have not been inspected and certified to as suitable for such use by inspectors or assistant inspectors of the service. By an act approved January 22, 1894 (28 Stat. L., 28), provision was made whereby this work of inspection and certification of boiler plates might be performed at the mills in which these plates are manufactured. No special force was authorized to perform this work, but use could be made of assistant inspectors detailed for that purpose. The act expressly provides as follows:

And the Supervising Inspector-General may, under the direction of the Secretary of Commerce, detail assistant inspectors from any local inspection district where assistant inspectors are employed, to inspect iron or steel boiler plates at the mills where the same are manufactured; and if the plates are found in accordance with the rules of the supervising inspectors, the assistant inspector shall stamp the same with the initials of his name, followed by the letters and words "U. S. Assistant Inspector"; and material so stamped shall be accepted by the local inspectors in the districts where such material is to be manufactured into marine boilers as being in full compliance with the requirements of this section regarding the inspection of boiler plates. . . .

In pursuance of this authorization, assistant inspectors are detailed to serve as inspectors of boiler plates at cities where such plates are manufactured. The number and location of these assistant inspectors is altered from time to time to meet the needs of the service. At present, assistant inspectors are

detailed to perform this work at Coatesville (Pa.), Pittsburgh, Chicago, Cleveland, Buffalo, and Philadelphia.

Inspection Service. The inspection service includes all field operations with the exception of steel plate inspection which, on account of its special character, is treated as a separate division. The field service is divided, first, into general districts, each in charge of a supervising inspector, and secondly, into local districts, each in charge of an inspector of hulls and an inspector of boilers. As will appear later, the supervising inspectors assemble as a board for certain purposes, and the local inspectors of hulls and boilers for each local district as a local board.

Supervising Inspectors. For the immediate supervision of the work of inspection and the performance of other duties by the local and assistant inspectors, the territory of the United States is divided into eleven districts with a supervising inspector in charge of each. These officers, as has already been pointed out in describing the history of the service, were first provided for by the act of August 30, 1852. The method of appointment, compensation, powers and duties of these officers are set forth in detail in the act of February 28, 1911, as amended by the acts of February 27, 1877 (19 Stat. L., 251), April 9, 1906 (34 Stat. L., 106), May 22, 1912 (37 Stat. L., 116), October 22, 1913 (38 Stat. L., 208), and July 2, 1918 (40 Stat. L., 739):

There shall be eleven supervising inspectors, who shall be appointed by the President, by and with the advice and consent of the Senate. Each of them shall be selected for his knowledge, skill and practical experience in the uses of steam or navigation, and shall be a competent judge of the character and qualities of steam-vessels, and of all parts of the machinery employed in steaming. Each supervising inspector shall be entitled to a salary of three thousand, four hundred and fifty dollars a year, and his actual necessary traveling expenses while traveling on official business assigned him by competent authority, together with his actual and reasonable

expenses for transportation of instruments, which shall be certified and sworn to under such instructions as shall be given by the Secretary of Commerce.

Each supervising inspector shall watch over all parts of the territory assigned to him, shall visit, confer with, and examine into the doings of the local boards of inspectors within his district, and shall instruct them in the proper performance of their duties; and shall, whenever he thinks it expedient, visit any vessels licensed, and examine into their condition for the purpose of ascertaining whether the provisions of this Title [Regulation of Steam-vessels] have been observed and complied with, both by the board of inspectors and the masters and owners. All masters, engineers, mates and pilots of such vessels shall answer all reasonable inquiries, and shall give all the information in their power in regard to any such vessel so visited, and her machinery for steaming, and the manner of managing both.

Whenever a supervising inspector ascertains to his satisfaction that any master, mate, engineer, pilot, or owner of any steam-vessel fails to perform his duties according to the provisions of this Title, he shall report the facts in writing to the board of local inspectors in the district where the vessel was inspected or belongs; and if need be, he shall cause the negligent or offending party to be prosecuted; and if the supervising inspector has good reason to believe there has been, through negligence or any other cause, a failure of the board which inspected the vessel to do its duty, he shall report the facts in writing to the Secretary of Commerce; who shall cause immediate investigation into the truth of the complaint, and, if he deems the cause sufficient, shall remove any officer found delinquent.

The supervising inspectors shall see that the several boards of local inspectors within their respective districts execute their duties faithfully, promptly, and, as far as possible, uniformly in all places, by following out the provisions of this Title according to the true intent and meaning thereof; and they shall, as far as practicable, harmonize differences of opinion existing in different local boards.

The supervising inspector shall visit any collection district in which there is at any time no board of inspectors, and within which steam-vessels are owned or employed. Each supervising inspector shall have full power in any such district, or in any district where, from distance or other cause, it is incon-

venient to resort to the local board, to inspect any steam vessel and the boilers of such steamer, and to grant certificate of approval, and to do and perform all the duties imposed upon local boards.

Each supervising inspector shall report, in writing, at the end of each fiscal year to the Supervising Inspector-General the general business transacted in his district during the year embracing all violations of the laws regulating vessels, and the action taken in relation to the same; all investigations and decisions by local inspectors; and all cases of appeal and the result thereof. . . .

Under the act of June 10, 1918 (40 Stat. L., 602), supervising inspectors are authorized to hear appeals from the decisions of local inspectors within their respective districts, and also to decide cases in which there is disagreement between the members of the local boards. In all cases an appeal lies to the Supervising Inspector-General.

It will be observed from the foregoing that the duties of the supervising inspectors are, to a large extent, those of an administrative or supervisory character, although where occasion requires they are authorized to perform the actual work of the inspection of vessels. They serve to decentralize supervision and control over the work of the local inspectors, and largely obviate the necessity for a general inspection service or other means for exercising central supervision over the work of the field service.

Criticism has been directed, from time to time, against the method of appointment of supervising inspectors. It has been argued that these officers should be kept free from political influence by placing them under the classified civil service. Such action was urgently recommended by the Supervising Inspector-General in his annual report for 1919, where he pointed out that, quite generally, the supervising inspectors are men who have been promoted from the position of local inspector, which office is under the civil service rules, and consequently should be given the same protection which they had before their promotion.

The following is the division, made by the board of supervising inspectors, of territory embraced in the eleven supervising-inspection districts:

First District embraces all the waters of the United States west of the Rocky Mountains and south of a line drawn east from Cape Disappointment to the intersection of the forty-seventh parallel of north latitude and longitude $112^{\circ} 30'$ west, and the Hawaiian Islands.

Second District embraces all the waters of Long Island Sound west of the Connecticut River and the tributaries thereto, that portion of Long Island lying west of Riverhead, and the waters of the Atlantic Coast, rivers, and tributaries from Long Island to Cape Charles.

Third District embraces the waters of the Atlantic coast, rivers and tributaries between Cape Charles and Cape Sable.

Fourth District embraces the Mississippi River and tributaries from above Greenfield Mo., to the head of navigation on the Missouri River, and to the head of navigation on the Illinois River.

Fifth District embraces the waters of the Atlantic coast, rivers and tributaries from the eastern boundary of the United States to and including the Connecticut River, and that portion of Long Island east of and including Riverhead.

Sixth District embraces the Ohio River and tributaries up to and including Carrollton, Ky., and the Mississippi River and tributaries from Greenville, Miss., up to and including Greenfield, Mo.

Seventh District embraces the Ohio River and tributaries above Carrollton, Ky.

Eighth District embraces all the waters of the Great Lakes north and west of Lake Erie with their tributaries.

Ninth District embraces all the waters of the River St. Lawrence, Lakes Erie, Ontario, and Champlain, and their tributaries.

Tenth District embraces the coast and tributary waters of the Gulf of Mexico, between Cape Sable and the mouth of the Rio Grande, and the Mississippi River and tributaries to Greenfield, Miss., and Porto Rico.

Eleventh District embraces all the waters in the States of Washington, Idaho, and Montana north of a line drawn east from Cape Disappointment to the intersection of the forty-

seventh parallel of north latitude and longitude $112^{\circ} 30'$ west, and also all United States waters in the territory of Alaska.

Board of Supervising Inspectors. Provision was made in the act of 1871 for a joint meeting of the supervising inspectors at least once in every year, to act as an administrative board in the formulation of general rules and regulations to govern the officers of the service in the performance of their duties and to prescribe in detail the conditions that must be observed by vessels and their owners and operators subject to the steamboat inspection laws. The powers and duties of this board are too numerous to be noted here, and they have already received sufficient detailed attention in the description of the activities of the service. The provisions of law authorizing the organization of the board and outlining in general its powers and duties are as follows:

The supervising inspectors and the Supervising Inspector-General shall assemble as a board once in each year at the city of Washington, District of Columbia, on the third Wednesday in January, and at such other times as the Secretary of Commerce shall prescribe, for joint consultation, and shall assign to each of the supervising inspectors the limits of territory in which he shall perform his duties. The board shall establish all necessary regulations to carry out in the most effective manner the provisions of this title and also regulations, prohibiting useless and unnecessary whistling, and such regulations, when approved by the Secretary of Commerce, shall have the force of law. . . .

The board shall examine into all the acts of each supervising inspector and local board, and all complaints made against same, in relation to the performance of their duties under the law, and the judgment of the board in each case shall be entered upon their journal; and the board shall, as far as possible, correct mistakes where they exist.

By an act approved March 3, 1905 (33 Stat. L., 1902), the work of the board of supervising inspectors was supplemented by the following provision:

That the Secretary of Commerce may at any time call in session, after reasonable public notice, a meeting of an executive committee, to be composed of the Supervising Inspector-General and any two supervising inspectors, which committee, with the approval of the said Secretary, shall have power to alter, amend, add to, or repeal any of the rules and regulations made, with the approval of the Secretary of Commerce, by the board of supervising inspectors, either by virtue of this section or under any power granted by this title, or any amendments thereof, such alteration, amendment, addition or repeal, when approved by the said Secretary, to have the force of law, and to continue in effect until thirty days after the adjournment of the next meeting of the board of supervising inspectors. . . .

Discussing the work of the board of supervising inspectors and the executive committee in his annual report for 1912, the Supervising Inspector-General said:

The usefulness of the Board of Supervising Inspectors becomes more apparent each year. The supervising inspector not only works for uniform administration of law, but by reason of the existence of the Board of Supervising Inspectors, prompt and effective action can be obtained to relieve conditions that are oppressive to licensed officers and to the general interests of the merchant marine. The provision of law that permits the calling of an executive committee has proved most beneficial and valuable, for by this instrument immediate results can be obtained without waiting for the annual meeting of the Board of Supervising Inspectors.

Inspectors of Hulls and Boilers. The actual work of inspecting hulls, equipment and boilers of steam-vessels is performed by officers known as inspectors of hulls and inspectors of boilers. The law provides that there shall be one inspector of hulls and one inspector of boilers in each of the collection (customs) districts and ports enumerated below, and shall receive the compensation indicated (Act of July 2, 1918; 40 Stat. L., 740) ;

STEAMBOAT-INSPECTION SERVICE

<i>Collection Districts</i>	<i>Salary</i>
Philadelphia, Pa.	\$2,700
San Francisco, Cal.	2,700
New London, Conn.	2,100
Baltimore, Md.	2,700
Detroit, Mich.	2,350
Chicago, Ill.	2,500
Bangor, Maine	2,100
New Haven, Conn.	2,100
Michigan, Mich.	2,500
Milwaukee, Wis.	2,500
Puget Sound, Wash.	2,700
Savannah, Georgia.	2,100
Apalachicola, Fla.	2,100
Oswego, New York.	2,350
Charleston, S. C.	2,100
Duluth, Minn.	2,500
Superior, Mich.	2,100
Pittsburgh, Pa.	2,100
Galveston, Tex.	2,100
Mobile, Ala.	2,350
Providence, R. I.	2,500
Willamette, Ore.	2,350

Ports

New York, N. Y.	2,950
Jacksonville, Fla.	2,100
Tampa, Fla.	2,100
Portland, Me.	2,500
Boston, Mass.	2,700
Buffalo, N. Y.	2,700
Cleveland, Ohio	2,500
Toledo, Ohio.	2,100
Norfolk, Va.	2,500
Evansville, Ind.	2,100
Dubuque, Ia.	2,100
Louisville, Ky.	2,100
Albany, N. Y.	2,500
Cincinnati, Ohio	2,100
Memphis, Tenn.	2,100
Nashville, Tenn.	2,100
St. Louis, Mo.	2,350
Port Huron, Mich.	2,350
New Orleans, La.	2,700
Los Angeles, Cal.	2,500
Juneau, Alaska.	2,500
St. Michael, Alaska.	2,500
Point Pleasant, West Va.	2,100
Burlington, Vermont.	2,100
Honolulu, Hawaii.	2,500
San Juan, Porto Rico.	2,500

The law makes careful provision that the persons appointed to these positions shall be technically and morally qualified to discharge the duties of their office. It thus provides:

The *inspector of hulls* shall be a person of good character and suitable qualifications and attainments to perform the services required of an inspector of hulls, who from his practical knowledge of shipbuilding and navigation and the uses of steam in navigation is fully competent to make a reliable estimate of the strength, seaworthiness, and other qualities of the hulls of vessels and their equipment deemed essential to safety of life in their navigation; and the *inspector of boilers* shall be a person of good character and suitable qualifications and attainments to perform the services required of an inspector of boilers, who from his knowledge and experience of the duties of an engineer employed in navigating vessels by steam, and also of the construction and use of boilers, and machinery and appurtenances therewith connected, is able to form a reliable opinion of the strength, form, workmanship, and suitability of boilers and machinery to be employed, without hazard to life from imperfection in the material, workmanship, or arrangement of any part of such apparatus for steaming. . . .

No person interested, either directly or indirectly in any patented article required to be used on any steamer by this Title [Regulation of Steam-vessels], or who is a member of any association of owners, masters, engineers, or pilots of steamboats, or who is, directly or indirectly, pecuniarily interested in any steam-vessel, or who has not the qualifications and acquirements prescribed by this Title, or who is intemperate in his habits, shall be eligible to hold the office of either supervising, local, or assistant inspector, or to discharge the duties thereof; and if any such person shall attempt to exercise the functions of the office of either inspector he shall be deemed guilty of a misdemeanor, punishable by a fine of five hundred dollars, and shall be dismissed from office.²

The appointment of local inspectors has been subject to the civil service rules, since the issue of an Executive order

² Act of February 28, 1871, as amended by the act of February 27, 1877 (19 Stat. L., 251), and Executive order issued March 2, 1896.

so directing, dated March 2, 1896.³ Prior to that date, they were appointed, from 1838 to 1852, by the United States district judges and, from 1852 to 1896, by a commission consisting of the collector of the district or other chief officer of customs, the supervising inspector in charge of the district, and the judge of the United States district court.

Boards of Local Inspectors. In addition to the performance of their duties as inspectors of hulls and boilers, the law provides that "the inspector of hulls and the inspector of boilers designated by the Secretary of Commerce shall, from the date of designation, constitute a board of local inspectors." The duties imposed by law upon the local inspectors acting as a board relate to: (1) the licensing of officers and pilots; (2) the conduct of inquiries in respect to the misconduct or incompetency of such officers, and the revocation of their licenses if the facts justify such action; (3) the examination and certification of able seamen and lifeboat men; and (4) the issuance of certificates of inspection to the owners or masters of vessels and the revocation of same in case of violation of the inspection laws. The manner in which these duties are performed has been fully set forth in describing the activities of the service.

Assistant Inspectors and Clerks. In addition to the inspector of hulls and the inspector of boilers, the Secretary of Commerce may appoint, in districts or ports where the volume of work requires them, assistant inspectors and a clerk to

³ There seems to have been some doubt as to whether the section of the act of 1852 prescribing the method of filling vacancies in the Steamboat-Inspection Service was repealed by the passage of the Civil Service Act, approved January 16, 1883 (22 Stat. L., 403). An opinion rendered by the United States Attorney General in 1896 (21 Op. Atty.-Gen., 393) held that the appointing board provided for in the act of 1852 could not act as a board of examiners unless the members of such board were selected and appointed as such board of examiners under the civil service rule which authorizes the Civil Service Commissioners to "appoint from persons in the government service such boards of examiners as it may deem necessary." Hence the necessity for the issue of an executive order in 1896 expressly placing such offices under the classified civil service.

the board of local inspectors to receive compensation as follows: (Act of July 2, 1918; 40 Stat. L., 739)

Assistant Inspector

Port of New York, N. Y.	\$2,500
Port of New Orleans, La.	2,350
District of Philadelphia, Pa.	2,350
District of Baltimore, Md.	2,350
Port of Boston, Mass.	2,350
Port of Providence, R. I.	2,350
District of San Francisco, Cal.	2,350
All other districts and ports.	2,100

Clerk

All districts and ports (not exceeding)1,500

The assistant inspectors thus provided for are required to perform such duties of actual inspection as may be assigned to them under the direction, supervision, and control of the local inspectors. An important feature in respect to the duties of the assistant inspectors is that they may be detailed from one port to another as the needs of the service require. The provision of law in respect to this matter is as follows:

The Secretary of Commerce may from time to time detail said assistant inspectors of one port or district for service in any other port or district as the needs of the Steamboat-Inspection Service may, in his discretion, require, and the actual necessary travelling expenses of assistant inspectors so detailed, while travelling on official business assigned them by competent authority shall, subject to such limitations as the said Secretary may in his discretion prescribe, be paid in the same manner as provided in this section for inspectors.

Attention has already been called to the fact that the law authorizes the detail of such number of these assistant inspectors, as may be required, for service at mills manufacturing plates for use in constructing marine boilers. At those ports where it is necessary to have assistant inspectors the time of the local inspectors is usually consumed in office work, such as conducting trials and investigations, examining applicants for license, and the like. The assistant inspectors, in

such ports or districts, do the actual work of inspection, but do not have authority to perform such duties as those of the local inspectors in signing certificates of inspection, conducting examinations, etc.

Traveling Inspectors. The statement was made earlier in this chapter that the administrative and supervisory character of the duties imposed by law upon the eleven supervising inspectors served to decentralize the work of the service and to make unnecessary any agency or organization to exercise general supervision over the work of the service in the field. On the other hand, it will be recalled that one of the duties of the Supervising Inspector-General is to obtain uniform administration of the inspection laws. This officer, however, was not given any effective means with which to enforce such uniform administration throughout the service in the field until the appropriation act of July 16, 1914 (38 Stat. L., 454), which provided for a traveling inspector at a salary of \$2500 per annum.⁴ The duties of this officer were not defined in the act, but following his appointment in November, 1914, he was engaged in inspecting vessels and examining licenses of officers in all parts of the country, reporting deficiencies found to the central office. It was soon recognized that such an officer could be of great service in checking up on the work of the local inspectors and ordering errors and deficiencies thus discovered to be rectified, and in his annual report for 1915, the Supervising Inspector-General characterized the efforts of the travelling inspector as con-

⁴ The establishment of this office was the direct result of the following recommendation made by the Supervising Inspector-General in his annual report for 1913:

"The supervising inspectors of steam-vessels do considerable traveling in their districts, with a view to obtaining uniform administration of law therein, but the office of the Supervising Inspector-General should have two traveling inspectors, who, working under the direction of that office, could do excellent work in making re-inspections, and the Supervising Inspector-General would thereby be in closer and more intelligent touch with both the local inspectors and the supervising inspectors. This is the custom in other departments and in private services, and is fully justified by the results."

stituting "a most important means of obtaining uniform administration and improving the work of the Service."

The number of these traveling inspectors was increased to two by the appropriation act of May 10, 1916 (39 Stat. L., 66), and to three by the deficiency appropriation act of November 4, 1918 (40 Stat. L., 1020). The office of traveling inspector was given a permanent statutory basis by the act of July 2, 1918 (40 Stat. L., 739), which provides as follows:

The Secretary of Commerce may appoint not exceeding four traveling inspectors, when in his judgment they are necessary for the improvement of the service, each of whom shall be entitled to a salary of \$3,000 a year and his actual necessary traveling expenses while traveling on official business.

Accordingly the number of traveling inspectors was increased to four by the appropriation act of May 1, 1919 (40 Stat. L., 1213). Describing the work of these officers and the benefits to be derived therefrom, the Supervising Inspector-General in his annual report for the fiscal year ending June 30, 1919, commented as follows:

It is more than necessary at this time with the expansion of the American merchant marine to see that absolutely uniform results shall be obtained, and there is no arm of the Service that the Supervising Inspector-General may use with more effectiveness than these four traveling inspectors, whose work it is to travel among the different districts, to board ships in all parts of the country, and to call at the offices of the local inspectors with a view to following up further the complaints made to the central office and which have been previously followed up by the local inspectors and by the supervising inspectors. I cannot speak too highly of the efficiency which must come to the service by the proper use of this valuable corps of traveling inspectors, and you may be assured that they are being used in the most effective manner, to the end that the high standard already reached by the

Steamboat-Inspection Service may not only be maintained, but that that standard may be raised still higher.

Conclusion. It should be noted that the organization of this service presents certain features which deserve special consideration. The service has, in effect, a dual form of organization—the officers of the service, from the Supervising Inspector-General to the supervising inspectors and the local inspectors, acting in two capacities—as individuals, with specific duties of an administrative character, and as members of boards with quasi-legislative and judicial functions. As individuals the local inspectors perform the work of inspecting the hulls, boilers, and equipment of vessels; as local boards they examine and license pilots and officers of vessels, inquire into alleged acts of incompetence and misconduct on the part of such officers and suspend or revoke their license when the facts warrant. As individuals the supervising inspectors exercise supervision and direction over the work of the local inspectors, and, if occasion requires, they themselves discharge the duties of such officers; as a board they exercise delegated quasi-legislative powers through the formulation of rules and regulations having the force of law. As an individual, the Supervising Inspector-General exercises general direction over the administration of the service, and performs a measure of quasi-judicial work in hearing appeals from decisions of local and supervising inspectors; as a member of the board of supervising inspectors he takes part in the quasi-legislative work of that body.

The administrative control of the service is entirely under the Supervising Inspector-General, but the regulations governing the equipment of vessels are made by the Board of Supervising Inspectors, which also divides the country into inspection districts, assigns the several supervising inspectors to the various districts, and makes the administrative rules for the government of the field force. The powers and functions of the Board of Supervising Inspectors cease, however,

when the board has promulgated the rules. The interpretation and enforcement of the regulations and the disciplinary control exercised over all employees are entirely under the direction of the Supervising Inspector-General. In the administration of the work of the Service the Supervising Inspectors are subordinate in all cases to the Supervising Inspector-General.

An explanation of the reason for the adoption of this rather unusual scheme of organization and administration is to be found in the manner in which this service was built up. Originally, as pointed out in the history of the service, provision was made merely for local inspectors of hulls and boilers in the field. These officers were appointed by the United States district judges, and no provision was made for any administrative supervision over the manner in which they performed their duties. The need for such supervision in time becoming apparent, Congress, by act of August 30, 1852, provided for the division of the country into nine (since increased to eleven) districts, and the appointment of a supervising inspector in charge of each, to whom was assigned the duty of supervising and directing the work of the local inspectors in their respective districts. This act, though systematizing the work to a certain extent, still failed to provide for a real centralized service. It was not until nearly twenty years later, 1871, that further advance in this direction was secured by the act of February 28, of that year, which provided for the appointment of a Supervising Inspector-General with headquarters at Washington.

In making provision for this officer, Congress, however, failed to transfer to him any of the essential powers of the supervising inspectors. He was given no inspection force to aid in producing uniform administration, and the supervising inspectors remained practically independent of his authority, being appointed directly by the President, by and with the advice and consent of the Senate, and not even reporting

to him, but rather to themselves, sitting as a board

During recent years, however, as the result of several acts of Congress and of administrative regulations promulgated by the Supervising Inspector-General the administrative control of the force of the service has been centralized in the Washington office. Routine matters are disposed of by the various field offices, but the Washington office maintains a close check on the work of the district and local offices, takes such disciplinary action as may be necessary in cases of neglect of duty, and gives instructions regarding the action that should be taken in any unusual situation that may arise. While the files relating to individual transactions are generally kept in the district and local offices the Washington office calls for the complete record whenever these papers are necessary for a review of the action of local officers. It is true that neither the Supervising Inspector-General nor the Secretary of Commerce has summary power to remove or suspend the Supervising Inspectors, but the situation in this respect does not differ from that in other services—such as the Postal Service, the Customs Service, the Internal Revenue Service, and the Public Land Service—where the principal field officers are appointed by the President.

Among the factors that have resulted in greater centralization in administration may be the following: An inspection force has been placed at the disposal of the Supervising Inspector-General, by the creation of the office of traveling inspectors; supervising inspectors are now required (act approved May 22, 1912, 37 Stat. L., 116) to make annual reports at the end of each fiscal year to the Supervising Inspector-General, although the board is still authorized to examine them

⁵ It is interesting to note that the Supervising Inspector-General, in his annual reports for 1881 and again in 1897 advocated the abolition of the board of supervising inspectors, a reduction in the number of supervising inspectors from ten to five, and the establishment of a mixed commission composed of supervising, local and assistant inspectors to meet and advise the Secretary of the Treasury, at his call, as to the needs of the service.

and correct mistakes where possible; a card index system has been installed throughout the service, thus affording the central office up-to-date records of the field work of the service; monthly bulletins showing the rulings of the bureau are issued by the central office and sent to all inspectors, customs officers, and most of the steamboat companies and marine-boiler manufacturers in the United States; and the Supervising Inspector-General now has authority to entertain appeals from any decision made by the local or supervising inspectors, and his decision, when approved by the Secretary of Commerce, is final.⁶

The Supervising Inspector-General and the Secretary of Commerce have recommended other measures in their recent reports involving direct supervision of the activities of the service by the central office, such as the centralization of approval of hull and boiler construction, and the keeping of complete duplicate records of the work of the field inspection service in the office of the Supervising Inspector-General. The carrying out of such measures, is, of course, dependent upon favorable action by Congress authorizing the change and making appropriations to provide for the necessary additional employees.

⁶ In commenting upon the effect of some of these changes, the Supervising Inspector-General made the following statement in his annual report for 1911, concerning the card index system recently installed:

"It gives me particular pleasure to speak of the effectiveness of the card-index system of licenses issued and vessels inspected by which system local inspectors are required to forward to the central office immediately day by day card reports of licenses issued and vessels inspected, which cards bear the file number of the local office sending them, so that this office is able, by a simple request for a file, indicating same by a number, to obtain all the papers in the case. There have been instances of improper inspection that have been discovered through this system, and if the system discovers but one instance for improper inspection during a whole year its existence would be justified, for by maintaining a high standard of inspection lives are saved and property is protected."

APPENDIX I

OUTLINE OF ORGANIZATION

EXPLANATORY NOTE

The Outlines of Organization have for their purpose to make known in detail the organization and personnel possessed by the several services of the national government to which they relate. They have been prepared in accordance with the plan followed by the President's Commission on Economy and Efficiency in the preparation of its outlines of the organization of the United States Government.¹ They differ from those outlines, however, in that whereas the Commission's report showed only organization units, the presentation herein has been carried far enough to show the personnel embraced in each organization unit.

These outlines are of value not merely as an effective means of making known the organization of the several services. If kept revised to date by the services, they constitute exceedingly important tools of administration. They permit the directing personnel to see at a glance the organization and personnel at their disposition. They establish definitely the line of administrative authority and enable each employee to know his place in the system. They furnish the essential basis for making plans for determining costs by organization division and subdivision. They afford the data for a consideration of the problem of classifying and standardizing personnel and compensation. Collectively, they make it possible to determine the number and location of organization divisions of any particular kind, as, for example, laborator-

¹ House Doc. 458, 62d. Congress, 2nd Session, 1912—2 vols.

ies, libraries, blue-print rooms, or any other kind of plant possessed by the national government, to what services they are attached and where they are located, or to determine what services are maintaining stations at any city or point in the United States. The Institute hopes that upon the completion of the present series, it will be able to prepare a complete classified statement of the technical and other facilities at the disposal of the Government. The present monographs will then furnish the details regarding the organization, equipment, and work of the institutions so listed and classified.

OUTLINE OF ORGANIZATION

STEAMBOAT-INSPECTION SERVICE

DEPARTMENT OF COMMERCE

<i>Organization Units</i>	June 30, 1921	<i>Number</i>	<i>Annual¹ Salary Rate</i>
<i>Classes of Employees</i>			
I. General Administration			
1. Office of Supervising Inspector-General			
Supervising Inspector-General	1		\$5,000
Deputy Supervising Inspector- General	1		3,000
1. Office Force			
Private Secretary to the Super- vising Inspector-General	1		1,500
Clerk (class 4)	1		1,800
Clerk (class 3)	2		1,600
Clerk (class 2)	1		1,400
Clerk (class 1)	2		1,200
Clerk	2		1,000
"	2		900
Messenger	1		840
2. Boiler Plate Inspection ²			
1. Coatesville, Pa.			
Assistant Inspector of Boilers in Charge	1 ^a		2,500
Clerk	1 ^b		1,000

¹ Net, or without the temporary "bonus" or additional compensation of 60 per cent on classes below \$400, of \$240 on classes of \$400 to \$2500, and of an amount necessary to make the total compensation \$2740 on classes of \$2500 to \$2740. This is subject to minor exceptions in special cases.

² Except for the assistant inspectors detailed to Coatesville, Pa., for steel plate inspection, the inspectors of boiler plates are assigned to that duty from the office of the board of local inspectors where such inspection is required. The number so assigned varies, from year to year, at the discretion of the Supervising Inspector-General and according to the needs of the service.

^a Detailed from the office of the Board of Local Inspectors at New York.

^b Detailed from the Office of the Board of Local Inspectors at Baltimore.

OUTLINE OF ORGANIZATION

103

2. Pittsburgh, Pa.		
Assistant Inspector of Boilers in Charge	1 ^c	2,500
3. Chicago, Ill.		
Assistant Inspector of Boilers	1 ^d	2,100
4. Cleveland, Ohio.		
Assistant Inspector of Boilers	2 ^e	2,100
5. Buffalo, N. Y.		
Assistant Inspector of Boilers	1 ^f	2,100
6. Philadelphia, Pa.		
Assistant Inspector of Boilers	1 ^g	2,350
3. Inspection Service		
1. Traveling Inspectors ⁴		
1. Washington, D. C.	1	3,000
2. San Francisco, Calif.	1	3,000
3. Cleveland, Ohio	1	3,000
2. First Supervising Inspection District, San Francisco, Calif.		
1. Supervising Inspector	1	3,450
1. San Francisco, Calif.		
Board of Local Inspectors	2	2,700
Assistant Inspector	16	2,350
Clerk	1	1,500
"	1	1,020
"	4	1,000
2. Honolulu, Hawaii		
Board of Local Inspectors	2	2,500
Clerk	1	1,400
3. Los Angeles, Cal.		
Board of Local Inspectors	2	2,500
Assistant Inspector	2	2,100
Clerk	1	1,400
4. Portland, Ore.		
Board of Local Inspectors	2	2,350
Assistant Inspector	6	2,100
Clerk	1	1,400
"	1	1,000
3. Second Supervising Inspection District, New York, N. Y.		
1. Supervising Inspector	1	3,450
1. New York, N. Y.		

^c Detailed from the Office of the Board of Local Inspectors at New York.

^d Detailed from the Office of the Board of Local Inspectors at Chicago.

^e Detailed from the Office of the Board of Local Inspectors at Cleveland.

^f Detailed from the Office of the Board of Local Inspectors at Buffalo.

^g Detailed from the Office of the Board of Local Inspectors at Philadelphia.

⁴ The Traveling Inspectors maintain headquarters at the cities mentioned below, but they are continually traveling among the various inspection districts as directed by the central office of the service.

STEAMBOAT-INSPECTION SERVICE

Board of Local Inspectors	2	2,950
Assistant Inspectors	40 ^a	2,500
Clerk	3	1,500
"	2	1,400
"	2	1,200
"	4	1,000
"	3	900
2. Albany, N. Y.		
Board of Local Inspectors	2	2,500
Assistant Inspector	2	2,100
Clerk	1	1,320
"	1	1,000
3. New Haven, Conn.		
Board of Local Inspectors	2	2,100
Assistant Inspector	2	2,100
Clerk	1	1,000
4. Philadelphia, Pa.		
Board of Local Inspectors	2	2,700
Assistant Inspector	16 ^b	2,350
Clerk	1	1,500
"	1	1,200
"	2	1,000
"	1	900
4. Third Supervising Inspection District, Norfolk, Va.		
1. Supervising Inspector	1	3,450
1. Norfolk, Va.		
Board of Local Inspectors	2	2,500
Assistant Inspector	10	2,100
Clerk	1	1,500
"	1	1,400
"	1	1,000
2. Baltimore, Md.		
Board of Local Inspectors	2	2,700
Assistant Inspector	10	2,350
Clerk	1	1,500
"	1	1,400
"	1	1,200
"	1 ^a	1,000
3. Charleston, S. C.		
Board of Local Inspectors	2	2,100
Clerk	1	1,000
4. Jacksonville, Fla.		
Board of Local Inspectors	2	2,100
Clerk	1	1,000
5. Savannah, Ga.		
Board of Local Inspectors	2	2,100

^a Including Assistant Inspectors detailed for boiler plate inspection at Coatesville, Pa., and Pittsburgh, Pa.

^b Including Assistant Inspector detailed for boiler plate inspection.

^c Detailed to the office of the Assistant Inspector in Charge of boiler plate inspection at Coatesville, Pa.

OUTLINE OF ORGANIZATION

105

	Assistant Inspectors	2	2,100
	Clerk	1	1,400
5.	Fourth Supervising Inspection		
	District, St. Louis, Mo.		
1.	Supervising Inspector	1	3,450
	1. St. Louis, Mo.		
	Board of Local Inspectors	2	2,350
	Clerk	1	1,200
	2. Dubuque, Iowa		
	Board of Local Inspectors	2	2,100
	Clerk	1	1,400
6.	Fifth Supervising Inspection		
	District, Boston, Mass.		
1.	Supervising Inspector	1	3,450
	1. Boston, Mass.		
	Board of Local Inspectors	2	2,700
	Assistant Inspector	10	2,350
	Clerk	2	1,500
	"	1	1,200
	"	2	1,000
	2. Bangor, Me.		
	Board of Local Inspectors	2	2,100
	Clerk	1	1,000
	3. New London, Conn.		
	Board of Local Inspectors	2	2,100
	Assistant Inspector	2	2,100
	Clerk	1	1,200
	"	1	1,000
	4. Portland, Me.		
	Board of Local Inspectors	2	2,500
	Assistant Inspector	2	2,100
	Clerk	1	1,320
	5. Providence, R. I.		
	Board of Local Inspectors	2	2,500
	Assistant Inspector	4	2,350
	Clerk	1	1,400
	"	1	1,000
7.	Sixth Supervising Inspection		
	District, Louisville, Ky.		
1.	Supervising Inspector	1	3,450
	1. Louisville, Ky.		
	Board of Local Inspectors	2	2,100
	Clerk	1	1,500
	2. Evansville, Ind.		
	Board of Local Inspectors	2	2,100
	Clerk	1	1,000
	3. Memphis, Tenn.		
	Board of Local Inspectors	2	2,100
	Clerk	1	1,000
	4. Nashville, Tenn.		
	Board of Local Inspectors	2	2,100
	Clerk	1	1,000

106 STEAMBOAT-INSPECTION SERVICE

8. Seventh Supervising Inspection		
District, Pittsburgh, Pa.		
1. Supervising Inspector	1	3,450
1. Pittsburgh, Pa.		
Board of Local Inspectors	2	2,100
Clerk	1	1,500
2. Cincinnati, Ohio.		
Board of Local Inspectors	2	2,100
Clerk	1	1,200
3. Point Pleasant, W. Va.		
Board of Local Inspectors	2	2,100
Clerk	1	1,200
9. Eighth Supervising Inspection		
District, Detroit, Mich.		
1. Supervising Inspector	1	3,450
1. Detroit, Mich.		
Board of Local Inspectors	2	2,350
Assistant Inspector	6	2,100
Clerk	1	1,500
"	2	900
2. Chicago, Ill.		
Board of Local Inspectors	2	2,500
Assistant Inspector	5 ^a	2,100
Clerk	1	1,260
"	1	900
3. Duluth, Minn.		
Board of Local Inspectors	2	2,500
Assistant Inspector	2	2,100
Clerk	1	1,400
4. Grand Haven, Mich.		
Board of Local Inspectors	2	2,500
Assistant Inspector	2	2,100
Clerk	1	1,400
5. Marquette, Mich.		
Board of Local Inspectors	2	2,100
Clerk	1	1,200
6. Milwaukee, Wis.		
Board of Local Inspectors	2	2,500
Assistant Inspector	4	2,100
Clerk	1	1,400
"	1	1,000
7. Port Huron, Mich.		
Board of Local Inspectors	2	2,350
Clerk	1	1,320
10. Ninth Supervising Inspection		
District, Cleveland, Ohio.		
1. Supervising Inspector	1	3,450
1. Cleveland, Ohio.		
Board of Local Inspectors	2	2,500
Assistant Inspector	10 ^b	2,100

^a Including Assistant Inspector assigned to boiler plate inspection.

^b Including Assistant Inspector detailed for boiler plate inspection.

OUTLINE OF ORGANIZATION

107

	Clerk	1	1,400
	"	2	1,200
	"	1	1,000
2.	Buffalo, N. Y.		
	Board of Local Inspectors	2	2,700
	Assistant Inspector	8 ^a	2,100
	Clerk	1	1,380
	"	1	1,200
	"	1	1,000
3.	Burlington, Vt.		
	Board of Local Inspectors	2	2,100
4.	Oswego, N. Y.		
	Board of Local Inspectors	2	2,350
	Clerk	1	1,000
5.	Toledo, Ohio.		
	Board of Local Inspectors	2	2,100
	Assistant Inspector	2	2,100
	Clerk	1	1,400
11.	Tenth Supervising Inspection		
	District, New Orleans, La.		
1.	Supervising Inspector	1	3,450
	1. New Orleans, La.		
	Board of Local Inspectors	2	2,700
	Assistant Inspector	6	2,350
	Clerk	1	1,500
	"	1	1,200
	"	1	1,000
	2. Apalachicola, Fla.		
	Board of Local Inspectors	2	2,100
	Clerk	1	1,000
	3. Galveston, Tex.		
	Board of Local Inspectors	2	2,100
	Clerk	1	1,400
	4. Mobile, Ala.		
	Board of Local Inspectors	2	2,350
	Clerk	1	1,400
	5. San Juan, P. R.		
	Board of Local Inspectors	2	2,500
	Clerk	1	1,000
	6. Tampa, Fla.		
	Board of Local Inspectors	2	2,100
	Clerk	1	1,000
12.	Eleventh Supervising Inspection		
	District, Seattle, Wash.		
1.	Supervising Inspector	1	3,450
	1. Seattle, Wash.		
	Board of Local Inspectors	2	2,700
	Assistant Inspector	16	2,100
	Clerk	2	1,400
	"	2	1,000

^a Including Assistant Inspector detailed for boiler plate inspection.

STEAMBOAT-INSPECTION SERVICE

"		1	900
2.	Juneau, Alaska.		
	Board of Local Inspectors	2	2,500
	Clerk	1	1,500
3.	St. Michael, Alaska.		
	Board of Local Inspectors	2	2,500
	Clerk	1	1,500

APPENDIX 2

CLASSIFICATION OF ACTIVITIES

EXPLANATORY NOTE

The Classifications of Activities have for their purpose to list and classify in all practicable detail the specific activities engaged in by the several services of the National Government. Such statements are of value from a number of standpoints. They furnish, in the first place, the most effective showing that can be made in brief compass of the character of the work performed by the service to which they relate. Secondly, they lay the basis for a system of accounting and reporting that will permit the showing of total expenditures classified according to activities. Finally, taken collectively, they make possible the preparation of a general or consolidated statement of the activities of the Government as a whole. Such a statement will reveal in detail, not only what the Government is doing, but the services in which the work is being performed. For example, one class of activities that would probably appear in such a classification is that of "scientific research." A subhead under this class would be "chemical research." Under this head would appear the specific lines of investigation under way and the services in which they were being prosecuted. It is hardly necessary to point out the value of such information in planning for future work and in considering the problem of the better distribution and coördination of the work of the Government. The Institute contemplates attempting such a general listing and classification of the activities of the Government upon the completion of the present series.

CLASSIFICATION OF ACTIVITIES

I. Inspection

1. Inspection of vessels

1. Inspection of hulls
2. Inspection of boilers
3. Inspection of equipment
4. Issuance of certificates of inspection
5. Reinspection of vessels

2. Inspection and approval of boiler plates

3. Inspection and approval of equipment

4. Inspection for other departments

2. Examination, licensing, and classification of marine officers

3. Examination and certification of seamen and life-boat men

4. Determination of ships' complement and accommodations therefor

5. Conduct of investigations of marine casualties and violations of the inspection laws

1. Suspension and revocation of certificates and licenses

6. Establishment of regulations to prevent collisions

7. Regulation of marine transportation

1. Passengers

1. Determination of ship's passenger allowance

1. Issuance of special permits to excursion steamers

2. Inspection of passenger accommodations

2. Merchandise

1. Administration of laws concerning shipment of dangerous articles

2. Issuance of special permits to vessels carrying explosives

APPENDIX 3

PUBLICATIONS

Annual Report. The annual report gives general information regarding the work of the service during the fiscal year to which it relates. In addition it contains a brief financial statement, recommendations for the improvement and efficiency of the service, and an appendix devoted to general statistical data relating to the work of the service.

Laws Governing the Steamboat-Inspection Service. This publication is issued from time to time, as important amendments are made to the inspection laws, in accordance with R. S. Section 4494, which provides that "every master or commander of any steam-vessel carrying passengers shall keep on board of such vessel at least two copies of the provisions of this Title (Title LII—Regulation of Steam Vessels) to be furnished to him by the Secretary of Commerce; and if the master or commander neglects or refuses to do so, or shall unreasonably refuse to exhibit a copy of the same to any passenger who asks for it he shall be liable to a penalty of twenty dollars."

Steamboat-Inspection Service Bulletin. This bulletin, issued monthly, contains the rulings of the central office concerning the administration or the inspection laws and the rules and regulations made in pursuance thereof, and is distributed to inspectors, customs officers, steamboat companies, and marine-boiler manufacturers.

General Rules and Regulations of the Board of Supervising Inspectors. The general Rules and Regulations pre-

scribed by the Board of Supervising Inspectors are divided into four books, namely, (1) Ocean and coastwise, (2) Great Lakes, (3) Bays, sounds, and lakes other than the Great Lakes, and (4) Rivers. Revised editions of the rules and regulations are issued following the annual meeting of the board, and are furnished to all inspectors of the service as well as other concerned. Such rules and regulations, when approved by the Secretary of Commerce, have the force of law and must be observed accordingly.

Amendments and Supplements to General Rules and Regulations. Important changes or additions made in the rules and regulations governing the service made by the board of supervising inspectors at special meetings called during the year by the Secretary of Commerce, or by the executive committee of the said board, are distributed in the form of supplements until incorporated in a revised edition of the General Rules and Regulations.

Pilot Rules. Rules prescribed by the board of supervising inspectors to be observed by vessels in passing each other are divided into three books, namely, (1) for the Great Lakes and Their Connecting and Tributary Waters as far East as Montreal, (2) for Certain Inland Waters of the Atlantic and Pacific Coasts and of the Coast of the Gulf of Mexico, and (3) for the Rivers whose Waters Flow into the Gulf of Mexico and Their Tributaries and for the Red River of the North. Revised editions are published from time to time as important amendments or additions are made to such rules.

List of Officers of Merchant, Steam, Motor, and Sail Vessels Licensed During the Year. Each year, for the information of inspectors and others concerned, the central office of the service issues a list of all marine officers licensed by local boards of inspectors during the past fiscal year.

APPENDIX 4

LAWS

(A) INDEX TO LAWS

<i>Creation</i>		
Present Service established	16	Stat. L., 440
<i>Personnel</i>		
Positions established		
Supervising Inspector-General	40	Stat. L., 739
Deputy Supervising Inspector-General	40	Stat. L., 740
Traveling Inspector	40	Stat. L., 741
Supervising Inspectors	40	Stat. L., 740
Board of	33	Stat. L., 1022
Inspector of Hulls	40	Stat. L., 740
Inspector of Boilers	40	Stat. L., 740
Assistant Inspector	40	Stat. L., 741
Clerk of Local Board	40	Stat. L., 741
Method of Appointment of		
Supervising Inspector-General	40	Stat. L., 739
Deputy Supervising Inspector-General	40	Stat. L., 740
Traveling Inspector	40	Stat. L., 741 ^a
Supervising Inspector	40	Stat. L., 740
Inspector of Hulls	40	Stat. L., 740 ^a
Inspector of Boilers	40	Stat. L., 740 ^a
Assistant Inspector	40	Stat. L., 741 ^a
Clerks of Local Boards	40	Stat. L., 741 ^a
Qualifications of		
Supervising Inspector-General	40	Stat. L., 739
Supervising Inspector	40	Stat. L., 740
Inspector of Hulls	33	Stat. L., 1028
Inspector of Boilers	33	Stat. L., 1029

^a Act of January 16, 1883, (Civil Service Act) was expressly made applicable to the appointment of inspectors of hulls and boilers, assistant inspectors, and clerks by executive order issued March 2, 1896. Traveling inspectors are also under the classified civil service.

114 STEAMBOAT-INSPECTION SERVICE

Duties of	
Supervising Inspector-General	16 Stat. L., 455
Deputy Supervising Inspector-General	40 Stat. L., 740
Supervising Inspector	16 Stat. L., 449
	37 Stat. L., 116
Board of	33 Stat. L.,
	1022
	34 Stat. L., 881
Inspector of Hulls	33 Stat. L.,
	1023
Inspector of Boilers	33 Stat. L.,
	1027
Salaries of	
Supervising Inspector-General	40 Stat. L., 739
Deputy Supervising Inspector-General	40 Stat. L., 740
Traveling Inspector	40 Stat. L., 741
Supervising Inspector	40 Stat. L., 740
Inspector of Hulls	40 Stat. L., 740
Inspector of Boilers	40 Stat. L., 740
Assistant Inspector	40 Stat. L., 741
Clerk of Local Board	40 Stat. L., 741
Activities	
Inspection of Vessels	
Vessels subject to inspection	16 Stat. L., 455,
	456
	26 Stat. L., 180
	29 Stat. L., 690
	33 Stat. L.,
	1023
	34 Stat. L., 68,
	69
	34 Stat. L., 194
	35 Stat. L., 428
	36 Stat. L., 462
	41 Stat. L., 305
Inspection of hulls	16 Stat. L., 456
	33 Stat. L.,
	1023
	34 Stat. L., 194
	35 Stat. L., 428
Inspection of boilers	16 Stat. L., 431,
	452
	16 Stat. L., 456
	22 Stat. L., 310
	33 Stat. L.,
	1027
	34 Stat. L., 194
	35 Stat. L., 687
	36 Stat. L., 462
Inspection of equipment	16 Stat. L., 440-
	458
	24 Stat. L., 129

	25 Stat. L., 564
	33 Stat. L., 1023
	33 Stat. L., 1024, 1025
	33 Stat. L., 1028
	33 Stat. L., 1031
	34 Stat. L., 194
	34 Stat. L., 797
	36 Stat. L., 463
	38 Stat. L., 1170, 1185
Issuance of Certificate of Inspection	39 Stat. L., 224
	38 Stat. L., 1216, 1218
Reinspection of vessels	40 Stat. L., 602
	33 Stat. L., 1023, 1024
Inspection and Approval of Boiler Plates	16 Stat. L., 451, 452
	22 Stat. L., 310
	28 Stat. L., 28
Examination, Licensing, and Classification of Marine Officers	16 Stat. L., 446, 447
	16 Stat. L., 455
	23 Stat. L., 53
	29 Stat. L., 188
	30 Stat. L., 764, 765
	31 Stat. L., 50
	34 Stat. L., 194
	34 Stat. L., 897
	34 Stat. L., 1411
	35 Stat. L., 425
	36 Stat. L., 463
	38 Stat. L., 699
	38 Stat. L., 765
	38 Stat. L., 893, 894
	40 Stat. L., 602
Examination and Certification of Seamen	38 Stat. L., 1170
Examination and Certification of Life-boat Men	38 Stat. L., 1182
Determination of Ship's Complement and Accommodations Therefor	33 Stat. L., 1023
	38 Stat. L., 1165, 1166
	38 Stat. L., 1169, 1181

116 STEAMBOAT-INSPECTION SERVICE

	40 Stat. L., 548, 550
Conduct of Investigations of Marine Casualties and Violations of the Inspection Laws	16 Stat. L., 447, 449 16 Stat. L., 456, 457 35 Stat. L., 1144 37 Stat. L., 785 38 Stat. L., 765
Establishment of Regulations to Prevent Collisions	13 Stat. L., 58, 61 16 Stat. L., 450, 454 26 Stat. L., 320- 328 ^a 26 Stat. L., 425 ^b 28 Stat. L., 82, 83 28 Stat. L., 645, 650 28 Stat. L., 680 29 Stat. L., 381 29 Stat. L., 489 29 Stat. L., 690 30 Stat. L., 96- 103 31 Stat. L., 30 34 Stat. L., 850 38 Stat. L., 381
Regulation of Marine Transportation	
Determination of Ship's Passenger Allowance and Accommodations Therefor	16 Stat. L., 443 22 Stat. L., 186- 191 24 Stat. L., 129 31 Stat. L., 800 33 Stat. L., 711 35 Stat. L., 425 35 Stat. L., 583, 584 39 Stat. L., 918 41 Stat. L., 998
Issuance of Special Permits to Excursion Steamers	24 Stat. L., 129 39 Stat. L., 918, 919
Issuance of Special Permits to Vessels carrying Gunpowder	38 Stat. L., 1217

^a This act went into effect on July 1, 1897, in accordance with a Presidential Proclamation issued on Dec. 31, 1896 (29 Stat. L., 885).

^b This act went into effect on Dec. 15, 1890, in accordance with a Presidential Proclamation issued on Nov. 18, 1890 (26 Stat. L., 1561).

Regulations for Carrying Dangerous Articles	14 Stat. L., 81, 82
	16 Stat. L., 441, 442
	33 Stat. L., 1031, 1032
	34 Stat. L., 204
	37 Stat. L., 650
	38 Stat. L., 511
	38 Stat. L., 766
	40 Stat. L., 499

(B) COMPILATION OF LAWS AND REGULATIONS

The laws governing the Steamboat-Inspection Service are compiled and published by the Department of Commerce under the title:

Department of Commerce: Steamboat-Inspection Service.
Laws Governing The Steamboat-Inspection Service.

Revised Statutes of the United States as Modified by the Act of Congress Approved March 4, 1913, Establishing the Department of Commerce, and Other Acts of Congress.

Washington, Government Printing Office.

As the laws, regarding this service are thus readily available in printed form, and as their content has been summarized in describing the activities of the service, they are not reproduced here.

The regulations of the service are also compiled and published by the Department of Commerce, under the title:

Department of Commerce: Steamboat-Inspection Service

Ocean and Coastwise

General Rules and Regulations Prescribed by the Board of Supervising Inspectors as Amended at Board Meeting of January, 1920.

Edition: May 14, 1920.

Washington, Government Printing Office, 1920.

Similar compilations are made of the rules and regulations pertaining to the Great Lakes, Rivers, and to Bays, Sounds, and Lakes other than the Great Lakes. These regulations

differ from ordinary administrative regulations in that they relate primarily to the relations of the service to the public and when approved by the Secretary of Commerce, have all the force of law.

As these regulations are thus readily available in printed form they are not reproduced here.

The provisions of current appropriation acts relating to the service are given below:

1921—Act of March 3, 1921 (41 Stat. L., 1253, 1298)—

An Act Making appropriations for the legislative, executive, and judicial expenses of the Government for the fiscal year ending June 30, 1922, and for other purposes.

* * * *

Steamboat-Inspection Service: Supervising Inspector General, \$5,000; Deputy Supervising Inspector General, \$3,000; private secretary, \$1,500; clerks—one of class four, two of class three, one of class two, two of class one, two at \$1,000 each, two at \$900 each; messenger; in all, \$22,940.

Steamboat inspectors: For eleven supervising inspectors, at \$3,450 each, \$37,950.

Inspectors of hulls and inspectors of boilers, as authorized by law \$225,900;

Assistant inspectors, as authorized by law, for the following ports; New York, forty at \$2,500 each; New Orleans, six at \$2,350 each; Baltimore, ten at \$2,350 each; Providence, four at \$2,350 each; Boston, ten at \$2,350 each; Philadelphia, sixteen at \$2,350 each; San Francisco, sixteen at \$2,350 each; Buffalo, eight at \$2,100 each; Cleveland, ten at \$2,100 each; Milwaukee, four at \$2,100 each; Chicago, five at \$2,100 each; Grand Haven, two at \$2,100 each; Detroit, six at \$2,100 each; Norfolk, ten at \$2,100 each; Seattle, sixteen at \$2,100 each; Portland (Oregon), six at \$2,100 each; Albany (New York), two at \$2,100 each; Duluth, two at \$2,100 each; Portland (Maine), two at \$2,100 each; New London, two at \$2,100 each; Los Angeles, two at \$2,100 each; New Haven, two at \$2,100 each; Savannah, two at \$2,100 each; Toledo, two at \$2,100 each; three traveling inspectors at \$3,000 each; \$429,000;

In all, for inspectors, Steamboat-Inspection Service, \$692,850.

Clerk hire, service at large: For compensation, not exceeding \$1,500 a year to each person, of clerks to boards of steamboat inspectors, to be appointed by the Secretary of Commerce in accordance with the provisions of law, \$115,000.

Contingent expenses: For fees to witnesses; traveling and other expenses when on official business of the Supervising Inspector General, Deputy Supervising Inspector General, supervising inspec-

tors, traveling inspectors, local and assistant inspectors, and clerks; instruments, furniture, stationery, janitor service, and every other thing necessary to carry into effect the provisions of Title 52, Revised Statutes, \$160,000.

1921—Act of June 16, 1921 (Public No. 18, 67th Cong.)—
An Act Making appropriations to supply deficiencies
in appropriations for the fiscal year ending June 30,
1921, and prior fiscal years, and for other purposes.

* * * *

STEAMBOAT-INSPECTION SERVICE

Contingent expenses: For fees to witnesses; traveling and other expenses when on official business of the Supervising Inspector General, Deputy Supervising Inspector General, supervising inspectors, traveling inspectors, local and assistant inspectors, and clerks; instruments, furniture, stationery, janitor service, and every other thing necessary to carry into effect the provisions of Title 52, Revised Statutes, \$5,000, to continue available during the fiscal year 1922.

APPENDIX 5

FINANCIAL STATEMENTS

EXPLANATORY NOTE

Statements showing appropriations, receipts, expenditures and other financial data for a series of years constitute the most effective single means of exhibiting the growth and development of a service. Due to the fact that Congress has adopted no uniform plan of appropriation for the several services and that the latter employ no uniform plan in respect to the recording and reporting of their receipts and expenditures, it is impossible to present data of this character according to any standard scheme of presentation. In the case of some services the administrative reports contain tables showing financial conditions and operations of the service in considerable detail; in others financial data are almost wholly lacking. Careful study has in all cases been made of such data as are available, and the effort has been made to present the results in such a form as will exhibit the financial operations of the services in the most effective way that circumstances permit.

Prior to July 1, 1887, the Steamboat-Inspection Service was supported by the receipts paid into the Treasury for certificates of inspection, issued by the service to owners of steam vessels, and licenses issued to marine officers. The early annual reports of the bureau indicate that these receipts were more than adequate to cover the expenditures. Since 1887 this work has been done free of charge, and until 1911 the service received a permanent indefinite appropriation based on the amount of work performed. Subsequent to 1912

the service has received regular annual appropriations from Congress. In addition it has benefited from the appropriations for "Contingent Expenses of the Department of Commerce" for rent, light, etc.

In the following statements appropriations include only those amounts made directly for the benefit of the service. No account is taken of appropriations for "certified claims" made as a result of the exhaustion or lapse of an appropriation. These are generally small. The expenditures for the fiscal years 1887 to 1912 and for the fiscal year 1920 are figured on a cash basis. Those for the fiscal years 1912 to 1919 are figured on the accrual basis, that is, the statement shows all expenditures on account of the appropriations for the year mentioned regardless of whether the disbursements were made during the current fiscal year or in the two succeeding fiscal years during which the money was available. The "expenditures" for 1919 show the amounts expended out of the 1919 appropriation during the fiscal years 1919 and 1920.

STEAMBOAT-INSPECTION SERVICE

STEAMBOAT-INSPECTION SERVICE

* EXPENDITURES: FISCAL YEARS 1887 TO 1911, INCLUSIVE

Object	1887	1890	1895	1900	1905	1909	1910	1911
Salaries, Office of the Supervising Inspector-General; Steamboat-Inspection Service; Clerk Hire	\$ 214,080.84	\$ 220,470.43	\$ 261,997.27	\$ 298,715.59	\$ 325,190.16	\$ 438,580.91	\$ 441,180.68	\$ 441,509.86
Contingent Expenses ^a ..	36,743.13	39,287.03	62,150.45	50,808.32	80,539.69	88,242.88	86,938.34	101,039.96
Inspectors of Foreign Steam Vessels ^b	21,500.00	15,423.86	.....	.....	.....	.....	.....	.....
Contingent Expenses, Inspection of Foreign Steam Vessels	1,467.09	693.19	220.50	.....	.....	.....	.....	.....
Total	\$ 273,791.06	(\$ 275,874.51	\$ 324,368.22	\$ 349,523.91	\$ 405,729.85	\$ 526,823.79	\$ 528,119.02	\$ 542,549.82

* Data from Annual Reports, Steamboat-Inspection Service.

^a Includes fees to witnesses, traveling expenses of inspectors, supplies, etc.^b Special office of Inspector of Foreign Steam Vessels, abolished June 30, 1891.

FINANCIAL STATEMENTS

123

STEAMBOAT-INSPECTION SERVICE

* APPROPRIATIONS AND ** EXPENDITURES: FISCAL YEARS 1912 TO 1922, INCLUSIVE

Object	1912		1913		1916	
	Appropriation	Expenditure	Appropriation	Expenditure	Appropriation	Expenditure
Salaries, Office of Supervising Inspector-General.....	\$ 14,640.00	\$ 14,507.22	\$ 15,502.50	\$ 15,431.47	\$ 15,540.00	\$ 15,415.01
Salaries, Steamboat-Inspection Service.....	347,100.00	344,455.40	353,495.83	357,379.45	359,000.00	336,168.42
Clerk Hire	84,000.00	84,184.95	84,000.00	83,703.33	84,000.00	83,987.08
Increase of Compensation .....	.....	.....	.....	.....	.....	.....
Contingent Expenses ^a	90,000.00	79,899.33	86,000.00	77,637.96	100,000.00	99,923.78
Steamboat-Inspection Service, Tampa, Fla.....	.....	.....	.....	.....	.....	.....
Total	\$ 534,740.00	\$ 521,046.60	\$ 534,998.33	\$ 528,612.11	\$ 559,140.00	\$ 555,494.29

Object	1917		1918		1919	
	Appropriation	Expenditure	Appropriation	Expenditure	Appropriation	Expenditure
Salaries, Office of Supervising Inspector-General.....	\$ 16,440.00	\$ 16,421.03	\$ 18,240.00	\$ 18,092.22	\$ 20,773.34	\$ 22,774.13
Salaries, Steamboat-Inspection Service.....	412,100.00	407,880.95	434,100.00	915,411.93	586,900.00	675,094.15
Clerk Hire	84,000.00	83,422.41	99,000.00	89,389.84	109,000.00	114,461.98
Increase of Compensation .....	.....	.....	16,424.77	16,424.77	11,993.99	11,993.99
Contingent Expenses ^a	119,400.00	113,869.59	120,000.00	115,304.88	150,050.00	149,337.33
Steamboat-Inspection Service, Tampa, Fla.....	.....	.....	5,925.00	4,472.44	.....	.....
Total	\$ 631,940.00	\$ 621,539.98	\$ 684,689.77	\$ 1,158,996.08	\$ 878,717.33	\$ 973,701.08

Object	1920		1921		1922	
	Appropriation	Expenditure	Appropriation	Expenditure	Appropriation	Expenditure
Salaries, Office of Supervising Inspector-General.....	\$ 22,940.00	\$ 22,000.00	\$ 22,940.00	.....	\$ 22,940.00	.....
Salaries, Steamboat-Inspection Service.....	697,950.00	665,000.00	697,950.00	.....	692,850.00	.....
Clerk Hire	115,000.00	110,000.00	115,000.00	.....	115,000.00	.....
Increase of Compensation	79,398.12	79,398.12	87,974.88	.....	.....	.....
Contingent Expenses ^a	180,000.00	140,157.77	165,000.00	.....	160,000.00	.....
Steamboat-Inspection Service, Tampa, Fla.....	.....	.....	.....	.....	.....	.....
Total	\$ 1,095,288.12	\$ 1,016,555.89	\$ 1,088,764.88	.....	\$ 990,790.00	.....

^a Data from Digest of Appropriations.^{**} Data from Treasury's Combined Statement.^b Includes fees to witnesses, traveling expenses of inspectors, supplies, etc.^c Includes \$5,000.00 available in 1922.

APPENDIX 6

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STEAMBOAT-INSPECTION SERVICE

EXPLANATORY NOTE

The bibliographies appended to the several monographs aim to list only those works which deal directly with the services to which they relate, their history, activities, organization, methods of business, problems, etc. They are intended primarily to meet the needs of these persons who desire to make a further study of the services from an administrative standpoint. They thus do not include the titles of publications of the services themselves, except in so far as they treat of the services, their work and problems. Nor do they include books or articles dealing merely with technical features other than administrative of the work of the services. In a few cases explanatory notes have been appended where it was thought they would aid in making known the character or value of the publication to which they relate.

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INDEX

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- Boiler plates, inspection of, manufacture of, 12, 30-31, 46n, 48, 83-84.
- Boilers, inspection of, 2, 14, 15, 22, 35-37, 51-53.
- Cargo, hazardous, license requirements, 4-23, 75-79.
- Certification, of life-boat men and seamen, 26, 30, 57-8.
- Civil Service, classified, employees (except presidential) placed in, 13.
- Collectors of customs, powers and duties of, 4, 11, 12, 16, 43, 44, 64, 65-67, 72, 74.
- Collisions, adoption of international rules for prevention of, 11, 68; establishment of regulations to prevent, 9, 30, 67-69.
- Color-blindness, examination requirements, 23.
- Commerce, Department of, jurisdiction of, over Service, 23, 80-81, 98.
- Commerce, Secretary of, may detail assistant inspectors, 12, 19, 49, 83; may call committee to consider interim regulations, 19-20, 89; to pass upon rules to govern life-saving appliances, 25; may except foreign private steam passenger vessels from inspection laws, 30; may direct inspection of foreign vessels admitted to American registry, 30-31; to prescribe life-saving equipment for motor-boats, 39, 42; may pass upon rules to govern steering apparatus and fire-extinguishing equipment, 41; to pass upon safety equipment for steam vessels, 42; may make regulations to govern license appeal procedure, 45; may act on appeals, 47-48, 81; may pass upon methods of inspection of boiler plate manufacture, 48-49; to provide for issuance of certificates to life-boatmen, 58-59; to determine boundary between high seas and waters under local jurisdiction, 69n; reports to be made to, 74, 81, 85; to pass upon regulations to govern hazardous cargo, 76; may make rules to govern use of fuel-oil and grant permits therefor, 77; to pass upon rules to govern oil stores, 78; may convene board to determine tow and hawser lengths, 81.
- Complements, ships', determination of, 21, 58-60.
- Construction, inspection of, 12, 30.
- Deputy Supervising Inspector-General, office established, 24; appointment of, 81-82; powers and duties of, 24, 82.

- Equipment, inspection of, 1, 15, 22, 30, 37-43, 49-51.
- Equipment, minimum requirements, 2, 3, 4, 14, 30, 37-43.
- Examination, of marine officers, 15, 30, 53-57; of seamen and life-boatmen, 30, 57-8.
- Fees, covered into Treasury, 4, 11-12.
- Field service, 84-96.
- Fire-prevention, 2, 4, 18-19, 23, 41-43.
- Hulls, inspection of, 1, 2, 14, 15, 31-35.
- Inspectors, assistant, created, 12-13; subordinate to local inspectors, 19, 92-93; may be assigned to boiler plate inspection, 12, 48-49, 83-84, 93.
- Inspectors, local, created, 2; qualifications of, 2, 9, 91; appointment of, 2, 4; compensation of, 2, 4, 12, 19, 44; supervision of, 3-4; powers and duties of, 2, 9, 11, 21, 31-60, 67-73, 76, 82-83, 89-91.
- Inspectors, local boards of, created, 4, 9, 11, 15; powers and duties of, 2, 11, 26, 43-45, 49, 53-55, 57, 60-63, 73, 85-86, 92.
- Inspectors of boilers, see Inspectors, local.
- Inspectors of hulls, see Inspectors, local.
- Inspectors of foreign steam vessels, created, 11; abolished, 12.
- Inspectors, supervising, created, 3; qualifications of, 3, 84; appointment of, 3, 84; removal of, 4; compensation of, 4, 84; powers and duties of, 3, 4, 19, 21, 23, 24, 44-45, 47, 48, 49-51, 55, 73, 77, 85-86; districts of, 87-88.
- Inspectors, supervising, board of, created, 3; powers and duties of, 3, 5, 8, 9, 18, 19-20, 23, 25, 32, 36-37, 39-48, 55, 59, 67-69, 76, 78, 88-89.
- Inspectors, traveling, created, 24; appointment of, 95; compensation of, 95; powers and duties of, 94-96.
- Investigations, 1, 30, 60-67.
- License, of marine officers, 1, 4, 9, 10, 14, 15, 19, 22, 46n, 53-57, 61, 66-67.
- License, of passenger vessels, 2, 6, 10, 11, 22.
- License, of vessels in general, 2, 9, 10, 15, 30-31, 43.
- Life-boatmen, examination and certification of, 26, 30.
- Life-saving equipment, inspection of manufacture of, 49-50.
- Motor-Boat Act, 22, 38-39, 42-43, 54, 64-65, 69.
- Passengers, numbers limited, 3, 6, 11, 70-73; accommodations required for, 10-11, 60, 73-75.
- President, may suspend law requiring watch officers to be citizens, 56; to appoint Supervising Inspector-General, 80; to appoint supervising inspectors, 84, 98.
- Reinspections, 9-10, 46-48.
- Seamen, examination and certification of, 1, 15, 25-26, 30.
- Seamen's Act, 25, 38, 49, 59, 60.
- Ship Registry Act, 23.
- Supervising Inspector-General, office created, 8, 80; qualifications of, 8, 80; appointment of, 8, 80; compensation of, 8, 80; powers and duties of, 8, 9, 12, 19-20, 21, 24, 45, 49, 56, 59, 60, 61-62, 69, 80, 81, 83, 86, 88.

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